UNIVERSITY OF PENNSYLVANIA

THE USE OF RADIO BROADCASTING AS AN ADVERTISING MEDIUM IN THE UNITED STATES

HERMAN STRECKER HETTINGER

A THESIS

IN ECONOMICS

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

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1933

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HERMAN STRECKER HETTINGER

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INTRODUCTION

Broadcast advertising is still a very new business. The regular broadcasting of programs is in itself little more than twelve years old, while the use of broadcasting as an advertising medium has just reached the decade mark.

In the spring of 1920, the late H. P. Davis, vice-president of the Westinghouse Electric and Manufacturing Company,[1] was attracted by an advertisement of a Pittsburgh department store calling attention to a sale of equipment which could be used in listening to the company's experimental station 8-XK, located in the home of Dr. Frank Conrad, one of the Westinghouse research experts. At this time Mr. Davis was trying hard to find some means of realizing upon the huge war-time investment of the Westinghouse Company in facilities for manufacturing radio equipment, and the advertisement suggested to him that, instead of developing radio principally along the lines of point-to-point communication, receiving sets could be sold to listeners desirous of hearing programs broadcast from various stations, still to be established. Out of this idea a new medium of mass communication was born, and on November 2, 1920, Station KDKA, Pittsburgh, initiated the first regular program service by broadcasting the Harding election returns. Two years later the American Telephone and Telegraph Company, then owners of Station WEAF, in turn wondered how this new, expensive broadcasting equipment could be made to pay for itself.[2] Early in 1923 it attempted to solve the problem of revenue by issuing a circular to advertisers which stated that sales messages would be broadcast at the nominal charge of $100 for a ten-minute talk, during which time it was estimated that approximately 750 words could be delivered. Thus broadcast advertising modestly came into being.

Though the development of broadcasting as an agency of mass communication was so swift and revolutionary as to arouse universal public interest and to challenge the attention of Congress and the courts, the rise of broadcast advertising was slow and uncertain until the formation of the first of the great national networks late in 1926 transformed radio into a medium of national proportions. From then on the use of radio broadcasting for advertising purposes grew with amazing rapidity. Annual advertising expenditures increased from a scant four or five million dollars to approximately eighty million dollars.[3] A structure for broadcast advertising—including agencies, stations, networks and subgroups, regional networks, and the various middlemen functioning between the individual station and the agency or program sponsor—grew up within a few short years, while broadcasters and advertisers together developed the technique for a new medium with little or nothing to guide them. All this occurred with a rapidity which gave no opportunity for looking backward over the ground traversed, or for generalizing as to the principles which might guide the future development of the industry.

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[1] From pamphlet A-04914, issued by the Westinghouse Electric and Manufacturing Company.

[2] *Radio in Advertising*, O. G. Dunlap (Harper & Bros.), pp. 21–22.

Today there are signs that the industry is beginning to develop form, substance, and guiding principle. A fairly efficient structure is emerging from the chaos which ruled the years of 1929–30, when so-called spot broadcasting first competed with national networks. The groundwork of scientific advertising technique is being laid in the work of agencies, networks, and individual stations, and in the infrequent research by universities and similar organizations. The early indiscriminate rush of sponsors to the new medium is subsiding in favor of a steady growth in use by companies and industries to whose needs broadcast advertising is adapted.

The newness of the industry affords at once a splendid opportunity and a serious problem to the student of broadcast advertising desiring to make a contribution to the knowledge of the field. Thus far, investigation regarding broadcast advertising has been limited to a few scattered and tentative studies. Work in this field, therefore, is, to a large degree, purely a pioneering undertaking. This is true with respect to both its extensive and intensive aspects. As regards the former, no comprehensive study of broadcast advertising has ever been made, so that even the groundwork for an appreciation of the field as a whole does not exist in organized form today.

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[3] See chap. vi for details as to expenditures.

With respect to the intensive aspects of possible investigation, similar difficulties present themselves. Station records are so incomplete, the data collectable from different sources so uneven as to extent and period of years covered, that there arises a serious question as to the depth to which the intensive study of one particular phase of broadcast advertising can be carried.[4] It is quite true that interesting and valuable case studies could be carried on with the co-operation of advertising agencies and program sponsors primarily, and, to a lesser extent, of stations and networks. However, unless the investigator be engaged daily in the industry, these at present are extremely difficult. Studies in psychology, dealing with attention, imagery, memory, and similar factors as applied to broadcast advertising, provide an important field of investigation for the psychologist, but not the economist. Consequently, much of the research done in this field must remain, for the time being at least, of an extremely tentative and experimental nature.

In view of the extreme scarcity of information regarding the field as a whole, it seems that the outstanding need of the industry is for a broad, general survey of broadcast advertising in an attempt to describe, define, and evaluate the basic elements of its structure, the underlying principles of its technique, and the economic and social rôle which it plays in the modern business community.

A study of this nature is important for several reasons. In the first place, a general knowledge of the functioning of the broadcast advertising structure as a whole and its evaluation in terms of fundamental principles are necessary to the broadcaster, advertising agency, and program sponsor alike, if each of the three parties to broadcast advertising is to function intelligently with regard to each other and to broadcast advertising as a whole.

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[4] It is rare indeed to find a station whose records exist in satisfactory form even as far back as 1929, while even considerable network data prior to that date become fairly tentative in nature. Other than Denney's *National Advertising Records*, giving advertising expenditures for time over networks, the report on Commercial Radio Advertising prepared by the Federal Radio Commission for the U.S. Senate in 1931 under the Couzens-Dill Resolution and a few scattered studies by other agencies (often of doubtful methodology), there are no summarized data available. The incomplete station records —existing in the rawest conceivable state—therefore become the chief source of information, making satisfactory intensive study difficult and often impossible.

Moreover, broadcast advertising is the keystone of the so-called "American System" of broadcasting, which in turn implies a broadcasting structure privately owned and competitively operated, and deriving its revenue from the sale of "time" to advertisers. Since broadcasting itself is more than a mere advertising medium, being also a potent agency of mass communication—just as the public press is a vitally important agency for the dissemination of information and free speech as well as probably the most important advertising medium of all—it is impossible to evaluate the degree to which broadcasting in the United States fulfils the "public interest, convenience and necessity" as prescribed in the Radio Act of 1927 without carefully studying its workings from all angles.

It is for these reasons, therefore, that a broad comprehensive study of the use of radio broadcasting as an advertising medium in the United States has been essayed. Following intensive research in the field of listener habits and reactions with regard to broadcasting, the direction of broadcasting programs for several years, and consultation with network and station executives, advertising agencies, and government officials regarding the most fruitful fields of radio research, it has been this problem which always has loomed uppermost. Finally, this study was undertaken at the suggestion of Philip G. Loucks, managing director of the National Association of Broadcasters, and with the encouragement and assistance of the Hon. Harold A. LaFount, acting chairman of the Federal Radio Commission, James W. Baldwin, former secretary of the Commission, and Dr. Herbert W. Hess, chairman of the Merchandising Department of the Wharton School of Finance and Commerce of the University of Pennsylvania.

Specifically the objectives of the present investigation are as follows: (1) to determine the extent and manner of the use of radio broadcasting as an advertising medium in this country; (2) to evaluate the trends in broadcast advertising structure and procedure in terms of such fundamental principles as thus far may be discernible; and (3) to analyze and evaluate the American system of broadcasting in the light of the degree to which it fulfils the "public interest, convenience and necessity."

Material to be studied in the course of pursuing these three objectives will include (1) a general analysis of the psychological aspects underlying the popularity of radio broadcasting with the listening public; (2) a similar investigation of the psychological aspects of its adaptability to convey effectively the advertising message; (3) a study of the extent and nature of the listening audience to which the advertiser may address his program and message; (4) a description and analysis of the broadcasting structure existing to reach the potential audience, together with the various middlemen who function between the agency or advertiser and the individual station; (5) an investigation of the extent to which broadcasting is used for advertising purpose and by whom it is employed; (6) a study of the entire question of the manner in which radio broadcasting is utilized in advertising, involving such matters as program construction, the choice of the time of day and season at which to broadcast, commercial announcement technique, the use of special offers, contests and similar items; and finally a comparison of the service rendered the listener by the American broadcasters and advertisers as compared with that of principal foreign broadcasting countries, notably England and Germany, whose broadcasting problems are most closely akin to our own, and whose facilities are the best developed among the countries so situated.

Data for the investigation have been collected from practically every available source of information, including two years of experience as director of the broadcasting efforts of the University of Pennsylvania and by research experience in the general field of broadcast advertising.

A great deal of the fundamental, factual, and statistical information has been collected directly from the records of the two great national network companies, the Columbia Broadcasting System, Inc., and the National Broadcasting Company, both of which have been more than generous in their co-operation. Most of the data procured from these sources have been completely "raw" in nature so that first tabulations and summarizations have had to be made from it.[5] Where this has been necessary, classification and summarization have been undertaken only after consultation with the proper network authorities and experts, this procedure likewise having been followed with regard to all other data employed in the investigation. In addition to the factual material gleaned from network records, various executives have been interviewed regarding specific phases of the study. Indeed, wherever possible, material and conclusions have been checked with experts in the field, to insure accuracy of statement and soundness of interpretation.

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[5] The rawness of the data can be judged by the fact that all program information had to be tabulated from the network program sheets themselves, no summaries existing except in remote instances and for limited periods. The length of commercial announcements—except in the case of 1931, where information was requested by the Federal Radio Commission—could only be determined by actually counting the words in a representative sample of announcements.

Information regarding the money expenditures for network broadcasting time has been secured from *National Advertising Records* through the courtesy of its publishers, the Advertising Records Company, formerly known as the Denney Publishing Company. These records constitute the sole source of information regarding money expenditures for broadcast advertising available at the present time, and as such are invaluable to the student of the industry.

Information regarding individual station experience was gathered in a variety of ways. At the outset an attempt was made to secure a sample of 35 representative stations from which data could be secured, comparable in completeness to those furnished by the networks. A base year of 1929 was taken, however, since the writer was counseled that it would be impossible to procure information for an earlier date. Even this attempt was only partially successful. Detailed data finally were procured from 10 stations, whose generosity and interest are deeply appreciated. The remaining stations failed not because of interest or willingness but because the necessary records were not available in practical form. The detailed information supplied by the 10 stations in turn has varied greatly so that no combined tabulations have been possible, the data being used rather in the form of individual examples rather than in summary form.

This initial attempt at securing individual station information was supplemented by a questionnaire sent to the managers of 165 stations (other than the original 10 furnishing data), asking for their experience and opinion upon certain questions pertinent to the investigation. Replies were received from 52 stations of varying size and scattered throughout the entire country, thus constituting in themselves a representative cross section of the broadcasting industry.[6] This information in turn was supplemented by visits to 14 stations situated in New England, the Middle Atlantic states, Middle West, and Maryland. In this manner a total of 76 stations were reached by one or another of the methods outlined above.

The advertising agency viewpoint in turn was secured through interviews with radio executives in leading advertising agencies,[7] while time-brokers, special station representatives, electrical transcription companies, and other factors in the broadcast advertising structure were covered in a similar manner.

All classifications and tabulations in the study (e.g. program classification), have been made after careful consultation with qualified authorities in the field, both as to the propriety of the classifications and the actual practice of placing certain items under specific classifications when tabulation was begun. Tabulation of musical programs was done either by Irene Hewes or Sarah S. Hettinger of the library of the Curtis Institute of Music, Philadelphia, or by members of the network staff, the details of classification having been worked out in advance with network officials and also approved by Morrison S. Boyd, of the music faculty of the University of Pennsylvania, who also was consulted regarding the other musical phases of the study.

Partly because of their present dominance of broadcast advertising, and because of the greater availability of their records, the national networks have been used as the starting point of this discussion in this study, analysis then proceeding to the questions of national and local advertising over individual stations. Likewise, because of the inadequacies of data prior to that date, 1927 has been used as the initial year, though, wherever possible, a background has been given for developments prior to that period. Most data end June, 1932, since the mechanics of collection and tabulation have precluded extending the study to any later date.

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[6] A list of the stations answering the questionnaire, as well as those co-operating either through supplying detailed records or providing information when the writer visited them, is found in Appendix A. The questionnaire itself appears in Appendix B. Questions submitted to networks and the 35 stations are not listed since they are requests for specific records and as such are covered by a presentation of the records themselves. These will appear as the study is developed.

[7] Eleven of the most important agencies, as far as broadcast advertising is concerned, were interviewed. These were selected after consultation with competent authorities in the field.

In addition to the acknowledgments already made in the course of this Introduction, the writer wishes to voice his deep appreciation to the invaluable advice and assistance afforded by Paul W. Kesten, director of sales promotion, and John Karol, director of market research of the Columbia Broadcasting System, E. P. H. James, sales promotion manager and Paul F. Peter, chief statistician of the National Broadcasting Company, both in collecting the necessary data and in the planning and development of the study. To Dr. Leon Levy, president of the WCAU Broadcasting Company, goes the writer's gratitude for having first interested him in the field of broadcast advertising. Likewise, he extends his thanks and appreciation to Dr. J. Russell Doubman, associate professor of merchandising in the Wharton School, for his valuable assistance at all stages of the study, to Dr. J. Parker Bursk, assistant professor of statistics, for his advice in the matter of statistical presentation, and to Dr. Sherman S. Oberly, assistant professor of psychology at the University, for his counsel regarding the psychological aspects of the analysis. Finally, a special word of appreciation is due to Philip G. Loucks, managing director of the National Association of Broadcasters, at whose suggestion this study first took form and without whose kind assistance much of the information hardly could have been collected; and to Sarah S. Hettinger, whose continued help and encouragement smoothed many a rough place in an arduous but highly interesting road.

Logan Hall
University of Pennsylvania
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PART I. THE PSYCHOLOGICAL AND ECONOMIC BASES OF BROADCAST ADVERTISING

CHAPTER I

THE PSYCHOLOGICAL BASIS OF BROADCASTING: SATISFACTION AFFORDED TO THE LISTENER

In considering radio broadcasting, there is a great temptation to take it too much for granted. Though a few years ago it was the latest wonder of the age, broadcasting by now has become a fairly commonplace matter. A program from Europe or distant Asia is received with little more interest or enthusiasm than was evinced a decade ago by the lucky Philadelphian who had tuned in on Chicago. Radio is no longer a miracle; and, in consequence, the fundamental utility of radio broadcasting too often is overlooked by the various parties concerned with it.

Nevertheless, this fundamental utility of radio broadcasting to the listener must constitute the starting-point of any analysis of broadcasting or broadcast advertising. What is the potential satisfaction which can be derived by the listener from the use of his receiving set? Until this question is answered it is impossible either to criticize broadcasting for what it has failed to give the listener of his due or to praise it for the bounties which it has provided. Nor is it possible to evaluate the hold which it has upon the listener, and which in turn lies at the heart of its value as an advertising medium. It is, therefore, with such an analysis that our investigation begins.

Mechanically, broadcasting is the transformation of sound impulses into electrical energy and its radiation far and wide through the ether. This energy is sent in all directions as light rays from an electric-light bulb, and, indeed, there seems to be a fundamental relationship between the two. The electrical energy, in turn, is picked up by the listener's receiving set and retransformed into sound, with the resulting program. Thus far, broadcasting has been limited to the transmission of sound, though the advent of television in more than experimental form undoubtedly will extend its range of activity into the realm of sight as well, with ensuing radical modifications of broadcasting structure and procedure.

Two basic results of the fundamental characteristics of broadcasting should be borne in mind from the outset. The first of these is that, because of the radiation of the broadcast electrical energy over wide areas, the radio station becomes one of the most potent agencies of mass communication to have been developed since the printing press. A second result is that, limited as it is at present to the transmission of sound, radio broadcasting depends primarily upon two agencies of expression—(1) the spoken word and (2) musical expression, both vocal and instrumental. To this should be added a supplementary medium of auditory expression which has arisen out of radio broadcasting itself, namely, sound effects; whereby the imagery of the individual is reinforced by the appropriate sounds which suggest to him the presence of objects (the whir of an airplane), forces (wind or rain), or activities on the part of actors (pouring water, footsteps).

The first of these two results achieves importance only when the structure of broadcasting in relation to the listening audience served is taken into consideration. The second, however, is of immediate concern. Because of it, radio broadcast programs are restricted to various forms of musical presentation, ranging from symphonic orchestras to pianos and accordions, and from Stravinsky to Tin Pan Alley; and to vocal presentations including informal talks on interesting subjects, formal lectures and debates, accounts of news events, broadcasts of public occasions, dramatic programs from Shakespeare to the drolleries of Ed Wynn, and various other features.

Functionally, this vast body of program material may be divided into two principal categories, by no means mutually exclusive: (1) entertainment and (2) useful information. This classification possesses validity primarily with respect to the listener's attitude toward the program, rather than with regard to programs themselves, where one program may have an utterly different significance to two different groups. Thus a symphonic broadcast may have a definite utilitarian value to a student of music over and above the aesthetic enjoyment which it affords. It is also well to keep in mind the fact that there are varying degrees of useful information. The daily crop, market, and weather reports are of decided practical value to the farmers to whom they are broadcast throughout the country. Recipes for housewives likewise are of value, though not as intensely or materially so as the agricultural broadcasts. Finally, news reports, such as those of Lowell Thomas and political analyses exemplified by the work of Frederick William Wile, most decidedly are useful information even though they have little so-called practical value.

To the program sponsor the above classification has a decided significance. Entertainment and information are the two great reasons for listening to the radio. Unless the information possesses great basic utility indeed, as in the case of crop and market reports, there will be little interest in the program unless it is presented with especial attractiveness. Other than those objects of universal interest, namely, time, news, and weather reports, the broadcaster of useful information is faced with a restricted audience composed of the special-interest group or groups to which his subject appeals the most strongly. True, this circle may be enlarged by good showmanship, but there still are limits which cannot be transcended. Moreover, since man would rather be entertained than edified, the principal interest in broadcasting, at least under any democratized system, will be in entertainment.

Of the program types sketched briefly in the preceding paragraphs, music thus far has loomed most important, as it probably will continue to do as long as broadcasting is confined to the realm of sound. Therefore, in order to appreciate fully the satisfaction which the use of a radio receiving set affords the listener, and which constitutes the service rendered by broadcasting to the public, it becomes necessary to understand the fundamental aspects of the pleasure derived by the listener from hearing music. This, in turn, involves a brief excursion into the psychology of music, which, though it may seem abstract at the outset, is of great practical importance to all parties concerned with broadcasting (as will be seen later in the chapter).

It is not without reason that listener surveys indicate 60 per cent of the people of a community such as Buffalo, New York,[1] prefer musical programs to all others, and that in Philadelphia

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[1] *The Buffalo Radio Audience*, compiled for Station WBEN, Buffalo, New York, by Dr. Robert Riegel, of the University of Buffalo (1932).

99.8 per cent of listeners should find musical programs acceptable.[2] As a form of expression music is one of the oldest and most universal known to man. From earliest days certain of its tones have been associated with feelings of pleasantness and others with feelings of unpleasantness. Its rhythm has assisted in inducing motor activity in man, and often has been used by him in organizing his muscular activity either individually or in groups. Finally, its melodic and harmonic structure has been shaped into one of the most sublime agencies for the expression of human emotion. A more detailed analysis of the psychology of music will indicate what pleasure and satisfaction the listener derives from its various aspects.

The basic elements of music are sound, rhythm, and form. Sound in turn subdivides itself into pitch, volume or intensity, and timbre or quality. Rhythm, in turn, may be defined as a "periodicity of sound and some organizing principle which we call stress,"[3] which stress, in turn, is secured either by a change in the intensity, duration, or pitch of the dominant note; and which has the effect of grouping single notes into units with the accenting of one or more of the individual notes. The units into which the notes are grouped are known as the measure and the musical phrase. Finally, form implies melodic line, harmony, counterpoint, and the rearing of the entire complicated structure which finds its culmination in the symphony.

True, the listener may not recognize these elements in their technical habiliments, but he will note them just the same. "I don't like sopranos," he may comment, for the high notes grate upon his ears. He is commenting upon sound. "That march has a nice swing. It makes me want to tap my foot," says the listener as the rhythm catches hold of him. "It's a beautiful tune," continues the listener, "and I especially like the end where, in the closing chord, the cornet sings high above the whole band."

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[2] *An Analysis of the Summer Radio Audience in the Philadelphia Buying Area,* by Herman S. Hettinger and Richard R. Mead, University of Pennsylvania, compiled for Station WCAU, Philadelphia. The same preference was indicated in a similar study conducted in the early part of 1930—*A Study of Habits and Preferences of Radio Listeners in Philadelphia,* Herman S. Hettinger—thus seeming to point to the conclusion that listener habits in this respect are generally stable.

[3] *The Borderland of Music and Psychology,* by Frank Howes, M.A. (Oxon.) (Kegan Paul), p. 94. The reader is recommended to both Mr. Howes's chapter on "Rhythm" and the one on "Emotion in Music" as especially illuminating discussions of these two questions.

He is commenting upon melody, harmony, and orchestration. Musically unsophisticated as he may be, if his musical experience has reached even the most elementary stages, and granting a normal "ear" for music, these elements will have meaning to him.

This meaning will vary with the listener's auditory imagery and the degree of his musical education, formal or informal, and it therefore may be well to examine this question briefly. The simplest form of musical experience is the appreciation of sound by itself, devoid of rhythm or form. In the field of sight it is analogous to experiencing unrelated colors one at a time. In sound it relates to the pleasantness or unpleasantness of the pitch, intensity, or timbre of individual sounds. The listener's appreciation is purely sensory. It is limited to a feeling of restfulness upon hearing soft music, or to the stimulation afforded by a crash of sound; to delight in the full rich notes of the 'cello as against the thinner tones of the violin, or a preference for the middle pitch as against either extreme. Though all musical appreciation rests upon the sensory as its basis, it is only in the most unmusical that it fails to rise above these heights.[4, 5]

Thus, little musical experience remains at this level. Organization is the basic law of mental activity, and sound becomes organized in consciousness even as individual color sensations are blended into a picture. The non-voluntary attention of the sensorial experience soon becomes the more or less voluntary attention of following melody and form; while even earlier the sensory experience of pleasure or displeasure at hearing different tones transfers itself to chords, where thirds and sixths—abounding in such numbers as "Holy Night," Beethoven's "Minuet in G," barber-shop harmony, and popular music[6]—are found to be the most acceptable. Here the borderline between the purely

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[4] An excellent discussion of the levels of musical experience will be found in the essay on "Types of Listeners," by Otto Ortmann, appearing in *Types of Music*, edited by Max Schoen (Kegan Paul). The writer has borrowed from Mr. Ortmann's classification though reducing it to more elementary form, and enlarging upon certain aspects considerably from other sources.

[5] Anent the sensory type Mr. Ortmann finds a marked preference among young children for sounds of middle pitch, duration, and intensity as compared with the extremes (*ibid.*, pp. 43–44). Dr. Charles S. Myers also describes the sensory impressions of the most unmusical vividly in his essay, "Individual Differences in Listening to Music," *ibid.*, pp. 20–22.

[6] Ortmann, *ibid.*, p. 50.

sensory and higher forms of musical experience becomes extremely vague. Now rhythm asserts itself in consciousness. The listener, mostly through chance experience, has come to recognize certain phrases and progressions, so that melodic structure begins to have meaning for him. The perceptual and imaginal levels of musical experience now have been attained.

Simplest and most elemental of these forces is rhythm, next indeed to sound itself as a fundamental force in music. A tentative definition already has been given of rhythm,[7] and it is a sufficiently well-known phenomenon to require no additional description. Its probable origin and its effect upon the listener, however, are of considerable interest because of the light that they shed upon the satisfaction which the listener derives from pronouncedly rhythmic music, of which our modern dance tunes are such an important example.

Several theories have been advanced in explanation of rhythm. One of these is that rhythmic movements are inseparable from bodily activity,[8] and that all physical activity tends to take on a rhythmic form if repeated. From these rhythmic activities, in turn, came the dance, and with the dance was associated music. Closely allied to this is the theory that rhythm, especially as found in music, arose out of a need for some organizing principle in effecting concerted group action.[9] Still another approach is offered by the theory based on the observation that most of the factors which induce accentuation also give rise to attention,[10] and that therefore rhythm aids in keeping up the level of attention. All of these theories possess merit and probably constitute partial explanations of rhythms, each finding confirmation in certain phases of experience. The rhythmic aspects of bodily movement are matters of commonplace knowledge to anyone who has indulged in athletics, while the work songs of primitive tribes confirm the relation of rhythmic music to concerted group action. The last-mentioned theory is more difficult to illustrate in terms of simple daily experience, and therefore will be dismissed without further comment.

More important than the origins of rhythm are the effects which different rhythms exert upon the listener. These are of marked nature and can be measured specifically. The motor stimulus of a stirring rhythm, a matter of common experience, has been found definitely to heighten the systolic and pulse pressures and increase the velocity of the blood flow.[11] This type of music therefore is valuable in counteracting depressed reactions, in removing fatigue and arousing muscular activity. Likewise, a lullaby played on a violin was found to have a sedative and regularizing effect upon the body processes. The restful effect of certain definite rhythms also is well illustrated by an anecdote of Howes,[12] regarding a friend to whom the music of Bach, with its clear-cut mathematical tempo, was physically refreshing. Similarly, certain musicians have noted a desire, when fatigued, to play music of a regular rhythmic pattern, such as Bach, Haydn, or the early Beethoven sonatas. A seeming increase was noted in the tempo and accuracy of work on the part of student tabulators when popular dance music was being played in the tabulating room.

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[7] See p. 6.

[8] *The Fundamentals of Psychology,* by W. B. Pillsbury (Macmillan), p. 349.

[9] *The Rhythmic Conception of Music,* by Margaret Glyn.

[10] Pillsbury, *op. cit.*, p. 350.

From rhythm, musical experience progresses to melody and the simple perception of tonal progression. Melody is closely related to rhythm, and it will be found that most folk tunes combine simple melodic line with clearly pronounced rhythm. In this connection it is interesting to note the evolution which is taking place in modern dance music where the melodic and even the harmonic is taking a much more important place as against the purely rhythmic aspects than was the case a decade ago.

Finally, from the appreciation of melody it is a comparatively short psychological step to an understanding of the higher forms of composition, a knowledge of which is predicated more upon habituation than talent. Now the perceptual and imaginal levels of musical experience have been reached, and, with the latter of these, music becomes the potent medium for the expression of feelings and emotions which it is. It is with a brief discussion of this aspect that we conclude our analysis of the psychology of music as it relates to the listener.

[11] "The Effects of Music upon Electro-Cardiograms and Blood Pressure," by Ida H. Hyde, in *The Effects of Music*, edited by Max Schoen (Kegan Paul), pp. 184-97. The essay deals with the effect of other aspects of music than merely rhythm and it should be noted that major and minor chords, for instance, also exert an influence on the body processes, the former stimulating, the latter depressing.

[12] Frank Howes, M.A. (Oxon.) *op. cit.* (Kegan Paul), p. 137.

Psychologically, the question of emotion is a thorny one, related as it is to affection and feeling on the one hand, and to instinct on the other.[13] Important in the present instance, however, is the fact that, on the one hand, emotion possesses a close relation to feelings of pleasantness and unpleasantness,[14] and, on the other hand, with bodily changes by which nature has contrived to prepare the individual for strenuous effort in overcoming danger or difficulty.[15] These latter, in turn, are called into action, not only by the presence of acute physical danger, but from a thwarting of purposes, or the mere need for motor activity without the presence of a corresponding channel of expression. As an example of the latter, we can take the theoretical case of watching a romantic motion picture. The drama is drawing to a close; the obstacles have been overcome, virtue is about to receive its due, and the course of love soon again will run smoothly. Throughout the course of events we have been living the drama vicariously. We have strained in an attempt to overcome the seemingly insuperable odds, and, now that success is at hand, a warm glow of satisfaction suffuses us. In the drama we have recognized situations which demanded action, and instinctively we have tried to act regarding them; but the outlet being missing, the only result which we attained was one of emotional disturbance, pleasant or unpleasant, depending upon the situation and our relation to it. Thus does drama stir our emotions; with the additional feature that if any of the experience portrayed is analogous to some which we have faced, the emotional appeal of the unfolding story will be heightened by the memory of the analogous emotion which we in turn felt at some past time. Out of these relatively simple elements, then, the whole complex structure of human emotion is constructed.

The close relation of music to emotion is a matter of common experience. However, the exact relationship is more difficult to determine. Music probably is related, directly or indirectly, to both of the fundamental aspects of emotion previously described. The pleasantness or unpleasantness of certain tones or tonal combinations already has been noted, as has been the relation to motor activity and bodily changes of the rhythmic aspects of music. Similar changes, it should be noted, are induced by music in major and minor keys, the latter generally depressing and the former exerting a constructive effect;[16] the exact effect probably being determined by the combination of tonality and rhythmic pattern. Because of these relations, music possesses the ability to induce feelings and emotional states.

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[13] Pillsbury, *op. cit.*, p. 480, defines emotions as either a complicated feeling or the subjective side of an instinct. For present purposes this will do as well as any other definition.

[14] *Ibid.*, p. 480.

[15] *Ibid.*, pp. 487–90; also *Bodily Changes in Pain, Hunger, Fear and Rage*, by Walter B. Cannon, M.D. (Appleton).

This, however, is but the groundwork. As has been pointed out previously, the individual recollects[17] or recognizes how he or she felt in a given situation at some past time. Because of its ability to induce feelings, music produces an emotional reaction which the listener, referring to past experience in an endeavor to classify the impression which the music makes upon him, terms as "sad," "happy," "fierce," or "restful,"as the case may be.

Now to this is added all of the associations which a given "gay" or "sad" composition may have for him, all coloring and reinforcing the original mood created by the music. A certain composition may thus remind the listener of a past experience, or it may revive an image which has become associated with the number in question. Finally, if the listener is conversant with the literature of music or possesses especially strong musical imagery, he may find in the composition a projection of the personality and strivings of the composer; and, if these be analogous to his own, past or present, a picture of his own life, painted in tonal colors and shades. It is then that the highest level of imaginal musical experience is reached; and it can be said of all music as Storm has written of folk music: "Our own doings and sufferings are in these songs; it is as if we all had helped with their making."[18] In conclusion, it should be noted, first, that an individual tends to listen to different types of music at different levels, popular dance music seldom if ever rising above the perceptual level; and, second, that the richer content of imaginal listening causes the music inducing it to wear much better than that appealing to the lower levels of experience.[19]

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[16] Ida H. Hyde, *op. cit.*, pp. 184–97.

[17] Pillsbury, *op. cit.*, pp. 499–500; Howes, *op. cit.*, has an especially fine analysis of the relation of emotion and music, based largely upon this concept, and borrowing largely from Ribot and MacDougall.

[18] *Immensee*, by Theodore Storm, p. 36.

The preceding discussion of the psychology of music, abstract as it may seem, has a concrete bearing upon the question of the satisfaction which the listener derives from the use of his radio; for it helps to explain the types of music which he likes, and what he gets out of them. It is not without sound psychological foundation that popular music should indeed be "popular." Most listening to music is probably at the perceptual level, where mere enjoyment of the sound patterns without broader associations is the chief characteristic, or at best of a rather elementary imaginal type where the associations raised by the music are of a simple and homely nature. Consequently, if the broadcaster is to give the great body of the public the music it desires, he must provide music at a level which the listener is capable of appreciating. This means, therefore, that dance music, folk music, the more simple classical numbers, and the more elementary program music (music which tells a story) will be the types most appreciated by listeners as a whole. This is fairly well substantiated, at least for metropolitan centers, by Table I, showing the proportion of listeners in Philadelphia and Buffalo liking various types of music.[20] Thus, assuming that the radio broadcasting system should be operated for the great mass of the public, it is evident that the lighter types of music must continue to predominate.

Lest this be interpreted as meaning that we should condone the exclusive broadcasting of the cheap and meretricious, several additional aspects should be noted. In the first place, there is a variety of quality among popular, light classical, and the simpler classical compositions. The work of Grofe and Gershwin and the arrangements used by Paul Whiteman are a far throw from the monotonous rendition of the average dance band, while the old folk songs, Haydn, and the more readily understandable of the works of composers such as Beethoven and Tschaikowsky possess unquestionable merit, even if they do not contain the complexity of Strauss' "Zarathustra" or Stravinsky's "Oedipus Rex." Moreover, it already has been remarked that it is the music appealing to the imaginal level of listening which wears best. If this is true, is there not a possibility that the radio listener's taste, familiarized with all forms of music, should not turn more toward the higher types? This is the opinion of some of the most expert broadcasters. Finally, the opinion is ventured that it would be interesting to know exactly what has been the effect on public taste of the broadcasts of such organizations and periods as the New York Philharmonic and Philadelphia Orchestras, the Damrosch Musical Appreciation Hour, and the Metropolitan Opera, wherein, devoid of the awesome qualities of the concert hall, and in the intimacy of one's own home, one can hear the world's great music as one pleases. Though popular music will always predominate in public demand, the trend of popularity over the next decade, as far as proportion of various types of music is concerned, will be extremely interesting to observe.

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[19] "The Immediate and Long-Time Effects of Classical and Popular Phonograph Selections," by A. R. Gilliland and H. T. Moore in *Effects of Music* (ed. Max Schoen), pp. 211–22.

[20] Based upon studies made by the writer in Philadelphia in 1932 for WCAU, and by Dr. Robert Riegel, University of Buffalo, for WBEN of that city in 1932, and reproduced from "Metropolitan Radio Audiences" by the writer in *Broadcast Advertising*, December, 1932. The inclusion of Polish music in the Buffalo table is because of the large Polish population in that city. Likewise, the high percentage of people liking old-fashioned music is explained mainly on the basis of the large German population together with the Polish group already noted.

TABLE I

TYPES OF MUSIC LIKED BY PHILADELPHIA AND BUFFALO RADIO AUDIENCES

TYPE OF MUSIC	PERCENTAGE OF LISTENERS LIKING TYPE	
	Philadelphia	Buffalo
Classical	31.4	36.1
Semi-classical	39.9	39.0
Dance	73.4	69.0
Sacred	27.7	15.7
Old-fashioned	27.7	42.7
Polish	....	8.3

The question of the levels of listening, however, is but one of the aspects of musical psychology of interest to the broadcaster. The value of dance music, for instance, lies not only in the ease with which its melodic line and structure is perceived but in the physical and psychological effects which its pronounced rhythm engenders. It stimulates and is pleasant and helpful to work to, even though one barely is aware of its existence; whereas music of a higher type tends to require more concentrated listening and consequently distracts from the task at hand. It aids in motor activity and arouses a desire for such activity. This may be the reason why, in their surveys, investigators have found a relatively large proportion of housewives who have voiced a preference for more dance music broadcast during the morning and afternoon hours.[21]

This leads to a still broader question. Perhaps stimulating music broadcast in the morning possesses a constructive value to the listener. Likewise, restful music at the end of the day, or at the evening dinner hour (now abdicated to the children), may render valuable service to many listeners. This may be the psychological reason underlying the popularity of the Slumber Hour in its heyday. Finally, if music can stir emotions it may be of interest to the advertiser to study his musical program carefully to determine whether the correct emotional state has been built up before his sales message is delivered, or whether the type of music and performing group chosen is in keeping with the emotional background or feeling-tone which he wishes his product to possess. This indeed may be a fruitful field for additional investigation.

The discussion of the listener's satisfaction derived from musical programs having been completed, it now remains to see with what, other than song, the human voice can provide the owner of a radio receiving set. This, in turn, requires an analysis of the types of programs which can be translated into speech. Since the adaptability of broadcasting to the advertising message is primarily a matter of comparing the spoken and the printed word as means of influencing people to purchase goods, any discussion of the psychology of language necessary to this study will be postponed until this matter is considered. However, several general features should be mentioned tentatively.

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[21] Though the writer has never made a tabulation of this situation, it always has been of great interest to note the large proportion of the women voicing any desire for a change in program set-up (and they are relatively few out of the total listening audience) who demanded more dance music in the morning or afternoon. On the other hand, the requests for more classical music have been negligible at any period. Other investigators have noted the same trend.

The programs, which are conveyed to the listener through speech, represent events and objects through the medium of sound alone, the speech in turn reinforced either by sound effects or the actual noises of the occasion. There are no pictures or direct visual impressions to assist the spoken word, though visual imagery may be stimulated by the words utilized in the description. A second factor of importance is the ability of the voice to portray, at least partially, the personality of the speaker. Thus a gruff, friendly, masculine voice engenders confidence, while the unctuous tone, which women find so hard to overcome when speaking on the radio, makes the listener feel unconsciously that he is being patronized, and, as such, probably has a great deal to do with the marked unpopularity of women lecturers or announcers.[22]

Finally, individuals tend to associate certain types of voices with specific types of people, so that voice stereotypes are created. It is this stereotype of voice pattern which makes possible radio drama, where voice is the sole means of identifying the actors other than the descriptive lines worked into the script.

All of this in turn can be utilized through the age-old process of story-telling, practiced long before the first pictures were produced. In it, the imagination of the listener is free to create ideal characters out of the figment of his mind, unhampered by literal images, a sobering thought for those who some day may be obliged to create programs for television.[23]

With these preliminary remarks regarding non-musical programs to the rear, it may be well to analyze somewhat more thoroughly than thus far has been done what programs of this sort are available to the listener. At the outset these may be divided into two principal groups: (1) talks of different kinds, and (2) dramatic presentations. Under the first heading come programs such as news, market, and weather reports; editorial comments on aspects of the news such as those made by William Hard; educational talks, debates, and symposiums; eye-witness accounts of athletic and public events, where the talking is given added dramatic value by the crowd sounds; direct broadcasts of public events, such as national conventions and speeches by the President; miscellaneous talks on interesting subjects including religion, food, household hints, sports, and a variety of topics; and, finally, poetic readings. With regard to these, radio broadcasting becomes at once a magazine, class periodical, newspaper —in highly attenuated and hardly competing form to be sure —and economic bulletin.

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[22] This does not mean that women cannot be successful as speakers over the radio. Some of them have been decidedly so. It merely signifies that the number of women capable of making a favorable impression over the radio is definitely and seriously limited by their voice personalities, irrespective of how charming they might be if one were to meet them face to face.

[23] In this respect, Mrs. Loring Dam, of the University of Pennsylvania Museum, makes an interesting observation regarding the "Magic Carpet," a children's story hour which she conducts on Saturday mornings during the winter. It has been her observation that stories recounted without the aid of pictures, and preferably with the children taking part, have always been the most successful, while motion pictures presenting similar stories in detail have been decidedly less popular. Quite probably this is not entirely confined to children, and some of the untrammeled imagination of youth may withstand the onslaught of the years. In radio the writer has observed the same reaction in his personal experience with the program "Chandu, the Magician," which delighted him over the air and bored him completely in motion-picture form where it seemed utterly improbable and ridiculous.

In the field of drama, the material offered is of an equally wide variety. In presentations such as those of the Radio Guild, broadcasting reproduces the best traditions of the legitimate stage, though, of course, skilful adaptation is necessary to compensate for the lack of visual presentation, and not all stage works are capable of being successfully presented over the air. Dramatized stories in turn make broadcasting its own fiction magazine, various stories appealing to various classes. In this field the "Adventures of Mary and Bob" (the *True Story* program of several years ago), "Real Folks," "Red Adams," and the "Country Doctor" and "Seth Parker" are notable examples. If programs of this sort have any particular leaning, it is toward folk drama of the "Real Folks" and "Country Doctor" type. The comic strip, initiated by "Amos 'n' Andy," is another type of drama which has gained wide popularity, while the mystery story and melodrama—ideally suited for broadcasting in the play it gives the imagination and the wild results which can be achieved through sound effects—also are coming into their own. Finally, there are children's dramatic programs, mostly melodrama to be sure, but one program, "The Adventures of Helen and Mary," contains some delightful dramatizations of well-known fairy tales.

The relation of sound effects to successful dramatic broadcasting already has been mentioned several times. However, a complete appreciation of its importance in creating vivid impressions for the listener requires a somewhat more detailed description of procedure in this field. Probably the most simple approach is to describe the sound effects in a specific program, as noted and recorded by the writer. The program in question was a dramatization of the life of Alexander the Great, broadcast by the Columbia School of the Air.[24] As the scene opens, Alexander and his generals are banqueting following one of their victories. Music and the noise of the banquet hall are used to create the original atmosphere. The music is soft in the background, while the shouting of the men grows louder until individual voices are heard. It is as if one is moving nearer to the scene of festivities. Then, with the mental picture created, the sound effects fade before the voices of the principal actors, and finally pass away completely. The illusion is so complete, however, that it requires definite concentration to notice that the sound effects are no longer in use. Later, messengers approach, and one hears the sound of horses coming nearer; then the approaching and, later, the retreating footsteps of the messenger himself. In another episode of the sketch, Alexander burns his wagon train before marching into India. The wagon train is some distance away from the main camp and the semi-mutinous Macedonians. Here the illusion of distance is beautifully created by two trumpet calls, the second echoing far away, as well as by the usual device of approaching and retreating couriers on horseback, the hoof-beats thundering on the hard earth. Still later, Alexander reviews the Persian troops which he has ordered trained in the Macedonian manner of fighting, and the sound of marching suggests thousands of men passing in review. Here again the spatial aspect is exceptionally well handled. In addition to these principal devices, numerous small sound effects, such as the scraping of a sword when it is drawn from its sheath, also are employed with great effectiveness. As one program manager once remarked, sound effects such as these are the lifeblood of the dramatic presentation over the radio.

By now we should have received a fairly clear appreciation of the potential satisfaction derived by the listener from the use of his receiving set. There is, however, one additional satisfaction which he secures, though its present importance is difficult to estimate; namely, the thrill of conquering time and space. This thrill is decidedly less than it was in the early days of broadcasting when it probably constituted the principal reason for listening. Nevertheless, there is incipient and often realized drama in being present, at least in hearing, at the performances of the Metropolitan Opera, when a new President of the United States is being inaugurated in Washington, or in Geneva on an occasion such as the one when the representatives of China and Japan pleaded their respective causes before the world, following the hostilities in Shanghai. It is a thrill which, to some extent at least, will remain with radio as long as radio exists.

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[24] *Broadcast*, November 21, 1932.

And so, in summary, radio broadcasting renders a wide variety of services to the listener. It is the symphony hall and opera house; salon and music hall; vaudeville stage and the realm of the legitimate drama; the fiction magazine and the more serious periodical; the newspaper (abbreviated, to be sure), farm journal, and woman's magazine; and, at times, even functions as a supplement to the formal school system, though its service in the field of adult education is vastly more important. Every station of any size or pretension fulfils the majority of these rôles for its listeners at least once during each week, and often daily. It is this service, and its utility to the listener, that constitutes the cornerstone of successful radio broadcasting.

CHAPTER II

THE PSYCHOLOGICAL BASIS OF BROADCAST ADVERTISING: ADAPTABILITY OF BROADCASTING TO THE ADVERTISING MESSAGE

The various factors which underlie the satisfaction derived by the listener from radio broadcasting, and which constitute the basis for its widespread popularity, were discussed in the preceding chapter. These are of fundamental importance to the radio broadcast advertiser, since they constitute the foundation of any sound program policy, a matter which he, as well as the station and network executive, must consider at all times. It is the purpose at this time to carry the analysis of the use of radio broadcasting as an advertising medium one step farther, and to inquire into the extent and nature of its ability to present effectively the advertising message to the listener. In the early days of broadcast advertising, when good will was the sole objective of program sponsors and the active selling message was seldom employed, this matter received little if any attention. Today, when the advertiser seeks to accomplish practically the same purposes through his radio campaign as by the use of any other medium, the adaptability of broadcasting to a definite selling message has become a question of no small concern. In considering its various aspects, the psychological approach again constitutes the soundest method of getting to the core of the problem, and has therefore been employed.

The specific uses of advertising are many,[1] but throughout all of them runs one fundamental purpose: To induce the sale of a given commodity, service, or proposition by successfully appealing to the consumer to purchase it. The appeal is a general one, designed for many readers or listeners; not as in the case of salesmanship, being created by a given seller to meet a specific contingency in which he is trying to influence an individual buyer to purchase the article in question.[2]

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[1] Kleppner lists some sixteen in all (*Advertising Procedure,* by Otto Kleppner [Prentice Hall], chap. ii), including linking a family of products together, dispelling malimpressions regarding the product, securing the support of the trade, to be recognized as a leader in the field, and numerous others. Other writers approach the problem differently but with equal variety.

Fostering the sale of the commodity involves, in turn, the overcoming of the resistance of the potential buyer by showing, through the means open to the advertiser, the desirability and even necessity of possessing the product, and by doing this so vividly that action will be stimulated and the purchase made. Moreover, since purchase may not be effected until some time after the potential customer has seen the advertisement, or since the advertiser may wish to have the purchaser continue to buy his brand when once the original stock has been exhausted, he must be certain that his message is remembered, which he accomplishes both through the vividness of his presentation and the number of times it is repeated.

From the viewpoint of the ideal, however, each individual advertisement should be strong enough to impel immediate purchase—obviously a very distant goal indeed. It is from this viewpoint, though, that an analysis of the psychology of advertising best can be undertaken. Continuing, therefore, with the question of making the advertisement sufficiently dynamic to cause the reader or listener to buy the thing advertised, the commonly accepted manner of describing the steps involved in this process is to say that the advertisement must attract attention, arouse interest, stimulate desire, and impel action. Walter Dill Scott visualizes this task[3] by describing three circles which the advertising message must penetrate before the individual can be made to buy. First, his attention must be attracted by the advertisement. Second, the message must be such that he can comprehend it. Finally, his inner springs of action must be touched, so that he will want the article enough to buy it. Psychologically, attracting the attention involves following the laws relating to the focus, margin, duration, and range of attention. Making one's message understood revolves about the related problems of perception, imagery and association, and comprehension. Securing action requires the creation of a motive to purchase through an appeal to the instinctive tendencies of the individual, together with his feelings and complexes; and, in addition, investing the product with the correct feeling-tone to give it the maximum compatibility with the motive which has been aroused.

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[2] This generalization is by no means water-tight. Strong arguments can be advanced for calling direct-mail advertising selling in spite of the fact that the same letter is sent to large numbers of people, no matter how artfully this is camouflaged. Likewise, it is argued by a few that broadcasting is selling because an individual announcer speaks, theoretically, to an individual listener, even though his message is keyed to the psychology of a group of listeners. The line between selling and advertising is not and never will be clear-cut, and the above distinction becomes one of degree.

[3] *The Psychology of Advertising*, by Walter Dill Scott (rev. ed.), chap. i.

Thus far in advertising, this process has been carried out almost exclusively in relation to the sense of sight.[4] Therefore, the laws of attention, imagery, perception, and the other related phases of psychology have been applied exhaustively to visual advertising. However, to date, practically nothing has been done with regard to the interpretation of these laws in terms of an approach to the listener through the sense of audition. Experimental work carried out in this field with special regard to broadcasting and broadcast advertising is so rare and so tentative as to be negligible.[5] The approach to the subject in this instance, therefore, must be in the nature of a reinterpretation of existing data in terms of radio broadcasting experience.

Since individuals are accustomed to think of advertising largely in terms of magazines and newspapers, and since the psychological principles relating to advertising have been worked out primarily with regard to these two media, the present discussion will consist mainly of a comparison of them with broadcast advertising, from the psychological point of view. One decided word of caution should be added at this point; namely, that in this comparison no attempt will be made to show the psychological superiority of one medium over the other, but it will aim merely at pointing out the similarities and dissimilarities, so that a clear understanding may be had of the strength and limitations of broadcast advertising as far as its fundamental psychology is concerned. Careful study of psychology as it relates to this problem, combined with broadcasting experience, has convinced the writer that a comparison of sight and sound advertising with a view of determining the general superiority of one or the other is a complete impossibility. The choice of any medium depends upon the specific task to be accomplished and the market to be reached—a principle which applies to the relative use of broadcast advertising as against other media as much as anywhere else.

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[4] The writer, however, knows of one instance where a chain of bakeshops created a synthetic smell of cooking which was wafted in front of the individual store, though the baking was done far away. Sales in the stores where the experiment was tried actually increased.

[5] A number of educational institutions, notably Ohio State University and the Teachers College, Columbia University, have been carrying on experiments in radio education which ultimately will be of value to all broadcasters from the psychological point of view. As yet though, they seem too tentative. The only volume of value in this field is *Voice and Personality as Applied to Radio Broadcasting*, by T. H. Pear, professor of psychology in the University of Manchester, England.

At the outset it may be well to discuss briefly the component parts of the typical magazine or newspaper advertisement and radio broadcast advertising program, in order that a clear understanding may be had of what is being compared. In visual advertising the principal component parts are the illustration, copy, mechanical aids such as color, borders, type face, kind of paper used, and similar features. In broadcast advertising the chief elements are the program itself, the commercial announcement, and the dramatization or sound effects used in combination with the commercial announcement to make it more vivid and attractive.[6]

A comparison between these elements reveals a rough similarity between the commercial announcement and the printed copy; between the type of voice, pronunciation, and delivery of the announcer and the type face; and between the dramatization or sound effects used in connection with the commercial announcement and the illustration of the printed advertisement. Though these points of correspondence are extremely tentative and by no means exact, they are of considerable value in attaining a clear appreciation of the elements of the broadcast advertising program.

This leaves the program proper to be accounted for, and to be placed in its proper category. Some broadcasters and advertisers have claimed that the program of the radio advertisement and the illustration of the printed advertisement are analogous. This seems to be an erroneous view. The real analogy is between editorial material of the periodical and the program of the broadcast. This confusion of reasoning at times has had unfortunate effects in that it has induced certain advertisers to value direct product tie-up in a program too highly, and occasionally to sacrifice the entertainment value of the program to that end.

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[6] What is meant in the last instance is in the nature of the sound of someone pouring himself a drink of ginger ale in the midst of a ginger ale announcement, or where the announcement is introduced in a conversation between two characters rather than directly. These factors, it will be seen, possess a separate and distinct relation to broadcast advertising as against similar effects used in the program proper.

The matter of comparing the program to editorial material, however, is not as simple as it appears at first glance. In constructing the program, it often is possible to shape the entertainment into what is functionally a very close replica of the illustration of a printed advertisement. Thus, in a series of broadcasts by Thomas Cook and Sons, the program consisted of a travelogue describing one of the many places which the company was attempting to persuade the listener to visit, and was practically in the nature of an illustration of the commercial announcements which preceded and followed it. Such a complete tie-up between product and program seldom is possible, nor is it even politic for all companies in a given field to attempt it. Thus another travel company may present a program of South American dance music in an attempt to direct the listener's interest to that part of the world. Here the relation between the entertainment and the commercial announcement is not as direct, though an aspect of the illustration still remains in the program. Finally, a third travel company may sponsor a famous opera singer with no thought other than that of attracting the attention of the economic and cultural class comprising its principal clientèle. Here the illustration aspect of the entertainment has passed away completely, and only the editorial phase remains.

In the foregoing analysis, no attempt is made to argue the relative merits and disadvantages of a close and direct program-product tie-up, but merely to clarify thinking as to the fundamental significance of the various parts of the broadcast advertising program. Product-program compatibility is vitally necessary to successful broadcast advertising in many instances but it can be achieved indirectly, through the creation of the appropriate feeling-tone, just as effectively as by a direct dramatization of the product itself during the course of the entertainment. The principal relationship between the program proper and the advertising message always must be basically one of editorial material to advertisement; and such illustrative aspects as are possible must remain decidedly secondary.

This situation, where the advertiser furnishes the editorial material appearing immediately opposite his sales message, constitutes an important advantage of broadcast advertising. In the first place, it enables the advertiser to select the type of entertainment most certain to appeal to that part of the listening public which he is most interested in reaching, and to place it next to his own advertising message. Moreover, if he possesses the requisite enterprise and showmanship, it is possible for him to construct the best feature of its type to be broadcast, and thus to be doubly sure to hold his audience in competition with the programs of other advertisers. Potentially, then, the broadcast advertiser always has the possibility of placing his sales message immediately opposite the outstanding feature article or story in the issue (here, in the day's broadcast). This characteristic of broadcast advertising makes it an especially effective medium for the daring and enterprising advertiser, who, because of it, can win huge audiences for his message. Moreover, the advertiser and not the medium gets the credit for the presentation.

It must be remembered, however, that the broadcast advertiser does not furnish all of the editorial material in which the listener is interested, much of which indirectly affects the reaction to his own program. He has little or no control, except as to his choice of the hour of broadcasting, over the programs which immediately precede and follow his own, and with regard to which too great similarity or contrast may adversely affect his own work. Moreover, it is the sum total of the editorial material— in other words all of the programs broadcast over a station—which constitutes the station's appeal to the public, and which therefore is an important factor in determining the proportion of listeners habitually tuning in on the station. Consequently, an outstanding program broadcast over an outstanding station will secure, on the whole, a much wider reception by listeners than the same program broadcast over a mediocre station of the same power and coverage.

It is the foregoing elements of visual and auditory advertising, therefore, which must be compared if a clearer understanding of the psychological aspects of the use of radio broadcasting as an advertising medium is to be achieved. As the basis for this comparison, Scott's three circles of attention, comprehension, and motivation[7] will be employed.

A comparative analysis of the attributes of visual and auditory attention yields little of practical value. One learns, for instance, that the eye takes in from four to five objects at a time, while the ear apprehends as high as eight ticks without rhythm and forty ticks if grouped.[8] One also notes that the auditory perception of space, both with regards to distance and direction, is inferior to visual,[9] which leads to the speculation as to whether there may not be less auditory distraction since the ear does not seem to be able to move over the periphery of sound as fast as can the eye over that of sight. It also is possible to speculate to the end that there are fewer auditory stimuli of like intensity present in the environment of an individual at a given moment than visual stimuli, again tending to lessen the potential distraction in the case of the former. However, this is largely conjecture. Indeed, sight and sound are so unlike that a discussion of this sort eventually ends nowhere.

There are a number of specific broadcasting considerations which may yield a more satisfactory approach to the attention phase of broadcast advertising, especially as far as the aspect of relative distraction is concerned. As to the number of items which can be attended by the average listener during the course of a broadcasting day, assuming normal listening habits, there is a definite limit. Surveys indicate that the typical set owner uses his radio from three to six hours a day, and likewise that he usually confines his listening to three or four stations to which he habitually resorts.[10] Since most programs are either fifteen or thirty minutes in length, with the former predominating, this means that, on the average, a listener will hear from nine to eighteen programs daily; probably nearer the former than the latter. These, in turn, are selected out of the thirty-six to seventy-two programs broadcast during the period of listening by the stations usually employed. In so far as more of this listening will be done in the evening than in the daytime, it is safe to assume that approximately 50–60 per cent[11] of the programs heard will be commercially sponsored. This means that the average listener will hear from four or six to ten or eleven commercial programs and their accompanying advertising messages daily. Thus there seems to be a greater potential isolation existing on the part of the average radio broadcast advertisement than with respect to an advertisement appearing in a publication, where a great many appear in one issue and more than one publication (magazine and newspaper) may be read daily. This is offset in part by the fact that the periodical (especially a magazine) is inspected a number of times with a resulting increase in the probability of a given advertisement being noticed by the reader.

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[7] See p. 20.

[8] *The Fundamentals of Psychology,* by W. B. Pillsbury, p. 273.

[9] *Ibid.,* p. 325.

[10] Listener studies such as the 'Elder studies" of the Columbia Broadcasting System, the Starch researches for the National Broadcasting Company, the writer's own researches in Philadelphia, and similar studies confirm these generalizations, all of which are generally accepted by the industry.

This rather restricted competition between advertisements in the radio broadcasting field is of considerable importance to the broadcast advertiser, especially when combined with the fact that the listener tends to make a habit of turning to a program which has pleased him once, without any preliminary sampling of the other programs being offered at the hour in question. Thus the advertiser builds up a loyal listening group who immediately turn to his program, and who are lost to any other commercial sponsor competing for the same audience at the same hour. Thus the advertiser secures almost perfect isolation for his message as far as his habitual audience is concerned, the aspect of previous interest at once directing their attention toward his program. Moreover, the advertising effort as a whole, though not the commercial announcement in particular, is actually sought after by the listener.[12] This is a tremendous advantage to the enterprising advertiser with courage and showmanship, though it imposes a penalty upon the mediocre broadcaster whose efforts cannot secure an audience from among the listeners already pre-empted by the outstanding programs, a penalty which is probably greater in broadcasting than in the case of other media.

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[11] See chap. vi for estimates as to the proportion of commercial to total programs broadcast. It should be remembered that listening is concentrated between the hours of seven and ten at night, as are commercial advertising programs.

[12] It might be argued here that the listener tends to tune in on the program and out on the commercial announcement. Without doubt this sometimes happens. This, however, does not invalidate the foregoing psychology, but is merely a challenge to the creation of sufficiently interesting commercial announcements to hold the listener interest. As an example, Ed Wynn's buffoonery during the Texaco announcement is as funny to the writer as any part of the program, if not more so.

Another aspect of the question of the relative distraction existing with respect to a broadcast advertising program is found in the fact that, in point of time, the advertisement proper does not compete with the editorial material. They are not on the same or opposite pages, but follow each other, each presented by itself. This indeed may give rise to unfavorable reactions in case of a poorly done announcement interrupting the tenor of the entertainment; but again this becomes a question of skilful announcing and not of the fundamental psychology involved. One aspect of printed advertising, however, should not be overlooked; namely, that in the case of certain periodicals people actually buy them as much to inspect the advertisements as for the articles contained.

Thus, because of the relatively few competing advertisements during the course of the broadcasting day as far as the listener is concerned, the item of previous interest, and the relatively slight competition between the sales message and editorial material (the program), the radio broadcasting advertisement seems to possess a relatively low amount of distraction when once the listener has decided to use his radio at all.[13]

This question, however, cannot be answered with any finality without additional experimentation. With regard to visual advertising, factors such as habit regarding the inspection of the advertisements (e.g. thumbing over the periodical), counterattraction between advertisements and between the editorial matter and the advertisement, and the mental level (concentration or reverie) of the reader at the time of perusal must be kept in mind. In the field of broadcast advertising, room noises and receiving set heterodyne, the possibility of engaging in other activities such as reading or work while listening to the radio, and competing visual impressions are among the factors which must be considered.

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[13] It is interesting to note that all of the foregoing factors have been mentioned by advertising executives in leading agencies. For the most part these men have not been concerned exclusively with the medium of radio broadcasting, so that their opinions possess objective value.

The ability to attend radio broadcasting, and therefore the broadcast advertising programs, while engaged in other activities, is a matter of considerable interest. Regarding it Paul W. Keston, director of sales promotion of the Columbia Broadcasting System, has raised an interesting psychological question in his conversations with the writer. With regard to most broadcasts of popular music, the listener does not give the program his undivided attention, but makes it the background for other activities. His general mental level therefore is one of diffused attention. Thus, when the commercial announcement is delivered, it constitutes a sufficiently pronounced stimulus to focus the listener's attention involuntarily upon the announcement. The resulting effectiveness possibly may be greater than in the case of a program—such as a dramatic broadcast—wherein the listener has been concentrating upon the entertainment, and where the announcement at times may constitute a distraction from the main purpose of listening. It is practically impossible to state this observation in the form of a conclusion, but rather, as a question illustrating the type of problem to be solved in broadcast advertising psychology. Its importance probably lies primarily in the realm of commercial announcement technique, where it may reveal guiding principles as to the construction of announcements for various types of programs, rather than with regard to programs proper.

Another observation illustrating existing problems in attention as related to broadcast advertising, which may bear mention at this time, is that of M. A. Howlett, president of Station WHK, Cleveland, Ohio. Mr. Howlett's view is that, since the majority of listening occurs at the end of the day's work, when the individual desires to relax and avoid difficult mental effort, his mental level is one primarily of diffused attention, ready to be focused by some stimulus. Because of the ease involved in attending the broadcasting program (all one does is to sit and listen), it furnishes an ideal subject to attend. However, since the listener is aware, at least dimly, that what he is hearing will not be repeated, once having decided to give the program his attention, he concentrates to catch it all the more. It can readily be seen that such a psychology will relate primarily to programs other than dance music, where active listening is a prerequisite to enjoyment, and to commercial announcements. It is an interesting observation, and, if nothing else, again aptly illustrates some of the questions regarding the attention given to broadcasting programs, which can only be answered by further research.

Analysis of the second aspect of advertising psychology, namely, the problem of securing comprehension of the sales message on the part of the reader or listener, involves a comparison of the visual and auditory means of communication represented in written and spoken language. The illustration, extremely important to printed advertising in the securing of comprehension, will be reserved for later mention.

At the outset, it is necessary to comment briefly upon the nature of language itself. Language may be described as a means of communicating thought, including ideas and emotions.[14] There are two principal forms of language: ear and eye. Of eye language the written word is the most important, though facial expression and gesture as forms of language may not be overlooked completely. Spoken language developed first, probably arising out of instinctive expressive movements which affected the placing of the speech organs and consequently the sounds that emanated from them. These sounds later came to be repeated to describe similar situations and to be formed into the foundations of language. Written language came later, appearing first in the form of picture writing, and later developing through successive steps into a more or less faithful representation of the spoken language underlying it. Thus spoken language is the living, changing language, of which the written word is merely representative.

Since the communication of thought is the chief purpose of language, its relation to thought in the mental process requires consideration. Here three alternative possibilities exist: (1) thought may precede language in definite and detailed imagery; (2) it may consist merely of language, and (3) it may be a mixture of the two. The intermediate condition is probably the most frequent and may consist of an alternation between thought in language and in images, or there may be a generalized idea of what is being considered existing in the vaguest terms, which in turn may be developed directly into words.[15] With regard to the manner in which the words themselves are thought or imaged in the mind, auditory-kinaesthetic imagery (the sound of the word combined with the muscular feeling resulting from its enunciation) seems somewhat to predominate, though both this form and visual imagery are possessed in varying degrees by different individuals.[16] Finally, it must be remembered that the language of an individual is largely conditioned by his general imagery. Words are but symbols, even though at times they are used interchangeably with the objects and ideas which they represent in the general thought-process. Behind every word stands an idea or concrete object, pictured in the mind of the individual for the most part in terms of his predominant imagery, or in a combination of several imaginal types. For these images language is but a symbol, though sometimes it serves as a short-circuit substitute for them.

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[14] *The Psychology of Language*, by Pillsbury and Meader (Appleton), p. 4. The author is indebted to this volume for the fundamental material presented here regarding language especially to chap. v, "Mental Processes in Speech," and chap. viii, "Language Receptors: Reading and Listening."

This relationship between language and the objects or ideas which it represents becomes clearer, especially as it relates to the perception and understanding of the broadcast advertising message, when the respective psychological aspects of reading and listening are analyzed. Of these two, reading will be considered first.[17]

Two types of reading require discussion; reading for words and reading for sense. In reading for words it is the word itself, as it has been seen on the printed page, supplemented frequently by the sounds of the words had they been pronounced, which constitutes the basis of the reading process.[18] This type of reading finds its most typical expression in proofreading. At the other extreme, is reading for sense, wherein the principal object is to grasp the thought of the author. Pillsbury says:

> In this case the supplementing may not be words at all, but ideas of a non-verbal character. One may become so lost in a description that the words are practically not noticed. Pictures or other content are suggested by the word and come to consciousness instead of the words—again an illustration of the

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[15] *Ibid.*, p. 99.

[16] *Ibid.*, pp. 101–2.

[17] The source of data for this discussion, other than the interpretation of its advertising significance is chap. viii, "Language Receptors: Reading and Listening," from Pillsbury and Meader. The chapter in question is the work of Professor Pillsbury.

[18] *Ibid.*, p. 138.

> law of perception that one may appreciate meanings which depend upon very definite sensory impressions without being aware of the impressions themselves.[19]

The pictures referred to in the above passage are in terms of the individual's specific imagery as described earlier in the discussion.

It is interesting to note the relationship existing between reading for words and reading for sense as it is found in the process of learning to read. This is described by Pillsbury as follows:[20]

> In learning to read, the printed symbol becomes associated with the spoken word in the same sort of repetition.[21] At first the sight recalls the sound and the sound the object or the idea, but with growing familiarity, the process becomes short-circuited as all mental processes tend to do, and the object may come at once on seeing the word. This mechanical association is fundamental for sense reading of all other types.

Thus it becomes evident that the progression is from reading by words to reading by sense, with many intermediate stages existing. The actual stage in a given situation depends upon a variety of factors such as the reading ability of the individual (many people seem never to have learned to read with facility); the imagery of the reader in relation to the subject matter at hand; the mental level at which reading takes place (e.g., forcing one's self to read when sleepy and when the mental level is one of diffused attention), the relative concreteness or abstraction of the subject matter; the reader's familiarity with the subject and vocabulary of the author, and similar considerations. According to Pillsbury,[22] probably the most prevalent intermediate stage is the one in which "one reads words and seems with the consciousness of the words to have the meaning in pictures or other mental content added to them." In his opinion most reading is probably of this type.

The foregoing analysis, therefore, seems to point to the fact that most reading involves both the auditory-kinaesthetic or visual imagery of the word itself and the image of the object or idea which it represents, so that two steps are involved in perception through reading, varying in degree with the individual and the situation in question.

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[19] *Ibid.*, p. 139.

[20] *Ibid.*, p. 140.

[21] Pillsbury refers here to the manner in which a child learns to associate a word with the object it designates by hearing it repeatedly when he sees the object.

[22] Pillsbury, *op. cit.*, p. 142.

Listening follows a closely parallel course to reading so far as its psychology is concerned except that here, in the opinion of Professor Pillsbury,[23] the tendency, at least in the case of the mother-tongue, is to have the sentences supplemented directly by whatever imagery is natural to the individual. Visual imagery of printed words comes only when there is some question of spelling or other difficulty.

If the writer interprets the situation correctly, the foregoing data indicate that, for a large number of people, the effort involved in the perception of the spoken message must to some measure be less than in the case of the printed message, necessitating as it does, in many instances, one less mental step. It is probable, however, that no final conclusion can be reached on this matter without additional experimental evidence; though, if this observation is correct, it constitutes an important advantage for broadcast advertising.

Several additional features regarding the perception and comprehension of the broadcast advertising message should be mentioned at this point. The first of these is the part played by the inflection of the human voice in aiding in the understanding of the spoken message, in turn assisted materially by the facial expression and gestures where the speaker is visible to the listener. Another feature to be noted is the fact that effective printed and spoken vocabularies differ greatly. Many words which look well and are readily understandable when presented in print (polysyllables for instance) militate seriously against comprehension when employed in speech, largely because of their cumbersomeness. It also should be noted that it is not possible with the spoken word to retrace one's steps over a perplexing passage, nor is it possible, in point of time, to cover the same amount of material by listening as can be achieved in the case of printed language. Nor does the spoken word offer the facilities for detailed and intricate description, necessary in the discussion of mechanical appliances and similar goods, that are open through the use of the printed word. This is probably of considerable importance in industrial advertising, but, in general consumer advertising, where sufficient clarity so that "he who runs may read" is necessary, it is of doubtful significance.

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[23] *Ibid.*, p. 146.

In conclusion, one phase of the printed advertisement remains to be discussed, namely, the illustration. There is no means by which perception and understanding is achieved more readily than through the use of pictures—concrete presentations of the product or the situation with regard to which the advertiser wishes to impress the prospective customer. Indeed, this is the most potent form of visualization open to the advertiser and constitutes an advantage of visual advertising which cannot be duplicated in any other manner. In certain cases it is almost indispensable. It is about the only way to present a clear picture of a complex product. At times it is vitally necessary in showing vividly certain characteristics of a product; as, for example, in pointing out the beauty of design of a certain brand of oil burner, where it would have been utterly impossible to have conveyed the same idea by purely verbal means. It is especially valuable in the dramatization of situations revolving about the use of the product, as is well testified by the number of advertisements in our leading magazines wherein the illustration, perhaps aided by the headline, tells the whole story, and there the copy performs few if any functions other than assisting in the construction of a balanced layout. In this regard it is especially valuable as an opening wedge for the securing of reader interest, and as a means of appealing to the instinctive tendencies upon which the creation of the motive for purchase depends. Broadcast advertising has no illustration except to the extent that the program can be used in this fashion, or to the limited degree, thus far at least, that dramatization of the commercial announcement itself has been effected.

Thus far the questions of attention and comprehension have been discussed from the viewpoint of the psychological aspects of broadcast and printed advertising. The problem of the appeal to the instinctive tendencies, whereby a motive to purchase the article is created in the mind of the prospective customer, requires little comment. It is chiefly a problem of using the tools at one's disposal for securing a complete appreciation of the advertising message on the part of the reader or hearer, a matter which already has been discussed in considerable detail. The final question, therefore, is the problem of investing the advertisement with the requisite emotional appeal to produce action on the part of the potential buyer.

In this respect the copy approach itself, that is, the content and development of the message, is of fundamental importance. Herein there is no difference between visual and auditory advertising except with regard to the limitations of visualization imposed by the characteristics of one as against the other; and it is this matter which therefore must be discussed. In the case of the development of the copy, there is little difference between the printed advertisement and broadcast advertising. True, the vocabulary of the latter must be more simple and theoretically shorter. On the other hand, renditions of narrative copy have been heard over the air within recent months which were beautifully done from the viewpoint of listener interest and which were every bit as long as could have been employed in a printed advertisement. It is believed that this difference has been overemphasized in the past, and that its true significance lies in the fact that the listener will object vociferously to lengthy broadcast advertising copy, while merely quietly refusing to read lengthy printed copy.

In the matter of presentation and visualization, a more pronounced difference exists between the two forms of advertising. The printed advertisement possesses the advantage of the illustration, which, for the purpose of dramatizing the message, is probably unequaled. Likewise, the type of illustration—pen and ink, wash drawing, or photograph, etc.—can be of material assistance in the creation of the appropriate feeling-tone—one of substantiality and dependability, of quality and workmanship, or whatever the case may be—for the advertisement as a whole. The type face, borders, layout, use or non-use of color and the paper, where this is controlled, can be employed to a similar end.

In the case of the broadcast advertisement, though the illustration aspect is definitely limited, other compensating factors are available for use. True, the work of the illustration can be accomplished in part through the dramatization of the product or situations revolving about the use of or need for the product, as has been mentioned previously, but these opportunities are limited. More important is the possibility of achieving the same effect indirectly by constructing the program so that its personality will suggest emotionally to the listener the qualities which it is desired that he should impute to the product advertised. Thus the famous Atwater Kent program dramatized, better than any illustration could have done, the feeling of high quality and pre-eminence imputed to the radio receiving sets of that name. Finally, a limited, but probably increasing, degree of the illustrative aspect can be achieved through the dramatization of the announcement. This can be done either through the use of sound effects, as was done by Canada Dry Ginger Ale, by humorous interludes, as in the case of Ed Wynn and Graham MacNamee on the Texaco program, or finally by leading into the commercial copy through anecdote or similar means, as is splendidly carried out by Heywood Broun on the General Electric program. Since the scientific construction of commercial announcements is just beginning to be achieved, this form of visualization is probably endowed with considerable future potentialities. All of these means therefore can be utilized effectively for building up the correct emotional appeal on the part of the broadcast advertising program.

One final attribute of the broadcast advertising program remains to be discussed: the human voice. From earliest days language, and especially spoken language, has been employed as a means of conveying emotions as well as ideas. Genetically, it probably was emotion, which was the first to be transmitted through articulate sound. Thus, today, the human voice still remains the most potent instrument of emotional expression, and one which, like the illustration in printed advertising, cannot be duplicated in any other manner. This seems to be one of the greatest advantages open to broadcast advertising, and one which thus far, largely from lack of adequate study, has been developed to a very slight degree.

The problem of vocal expression in relation to the broadcast advertising message is twofold. It involves, first, the creation of the correct emotional attitude on the part of the listener to ensure a proper reception of the message itself. Just prior to the recent Christmas holidays, David Wark Griffith, the motion picture director, broadcast an appeal over the Dromedary Date program. The appeal, incidentally, required the purchase of the dates in question, and promised that for every Dromedary Date box top mailed to the listener's station one box of dates would be provided the local Salvation Army free for distribution among the poor. The appeal was one to charity as well as utility, and for that purpose Mr. Griffith's delivery was almost perfect. Low, well-modulated tones, with decided emotional intonation to the delivery, synchronized perfectly with the purpose at hand. Again, in the case of the Texaco program, the enthusiasm of Graham MacNamee is the delivery best adapted to create a feeling of prestige for the product and of confidence in its ability to produce the satisfaction which has been promised the listener. The matter of appropriate delivery of a message, varying with the product and copy approach, and with a persuasive or imperative ending, is of tremendous importance in broadcast advertising, and when done correctly possesses marked value to the advertiser.

The second aspect of vocal expression, as it pertains to the broadcast advertising message, is with relation to the creation of an appropriate voice personality on the part of the announcer —one which will establish confidence and authority for what he says. Here, if anywhere, broadcast advertising most closely approximates personal salesmanship; for the delivery must be such that the listener receives the impression of one very specific individual, with a definite and marked personality, talking to him as man to man. Preachment goes even less in radio than on the printed page, and the personal relationship must be established without fail. This is, indeed, the secret of the success in the field of radio announcing, one announcer having created so popular a radio personality for himself that recently when he appeared at the studio rather late and out of breath, with a resulting impediment to the usual quality of his delivery, he received several thousand letters inquiring as to his health and prescribing a wide variety of remedies for colds and sore throats. It should be noted that the question of voice personality on the part of the announcer is a matter over and above the delivery of a given announcement in keeping with the emotional content of its message and of the program.

Because of the importance of the question of voice personality to broadcast advertising, it may be well to devote some time to discussing it. At the outset it is well to remember the potentialities of the voice as a form of gesture. "It is clear," writes

Professor Pear,[24] "that sometimes the characteristics of the voice are used consciously—more often unconsciously—as a form of gesture. If someone refuses or delays to perform a duty, he may be ordered to do so in a tone which is as effective as a whip. The conscious use of blandishment needs no more than mention." This aspect of voice seems to be more closely related to the delivery of a given announcement than to the matter of voice personality itself.

The problem of voice personality revolves about two principal aspects. The first of these is that, language being a social phenomenon, there is an element of social pattern in all use of the voice. This pattern in turn gives rise to the formation of voice stereotypes, or so-called "typical" voices representing to the average listener general types of individuals such as lawyers, teachers, ministers, laborers, and the like. The second aspect of voice personality is that of the individual variation from the social pattern, which constitutes the true expression of the personality of the speaker.[25]

Both of these aspects of voice personality operate in the field of the following voice dynamics: intonation, of which there are three levels—individual, racial and class; rhythm, pronunciation, vocabulary, and style. In addition to these qualities, voices are judged by listeners to have other individual qualities such as color and brightness, shape in the sense of well-rounded tones and texture—rough, smooth, and coarse. This synaesthesia, or predisposition to describe auditory stimuli in terms of other imagery, was reported by Professor Pear to have occurred in 24 per cent of 76 students employed in one experiment, and in 23 per cent of a group of 112 students in another instance.[26]

As far as voice stereotypes are concerned, they are probably developed by listeners on the basis of racial, class, and cultural standards, operating with regard to the various voice dynamics listed in the preceding paragraph. It is necessary, therefore, for the announcer to possess the correct voice pattern appealing to a definite class audience. The reader need merely compare the announcer on the National Farm and Home Hour to the Broadway sophistication of Ben Bernie, or listen to the programs of Dr. Brinkley, goat-gland expert and almost-governor of Kansas, over his Mexican station, XER, to grasp the significance of this phase of announcing. For this reason, certain voices, like that of Milton Cross and Ted Husing, are best suited to specific types of programs. The question of voice stereotype becomes even more important where a fictitious character, such as the Old Counsellor on the Halsey Stuart program of some time ago, is introduced to present the commercial copy. Here the voice must be indisputably in character, for the slightest slip is enough to destroy the impression. This pertains equally to the field of the radio drama. A final aspect of voice stereotypes, bordering closely on individual characteristics, is the question of commonly accepted voice patterns believed to be indicative of certain types of personality. Thus a gruff, masculine voice is supposed to typify honesty, probity, and ability, with the result that the speaker is believed merely because of this one characteristic. All of the foregoing aspects are of prime importance in the art of radio announcing, and in the psychological adaptability of broadcasting to the advertising message.

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[24] *The Voice and Personality as Applied to Radio Broadcasting*, by T. H. Pear, professor of psychology, University of Manchester, England (Wiley), p. 9. This volume is used as the basis for the ensuing discussion of voice personality.

[25] In the present discussion personality is interpreted as meaning "the effect upon others of a living being's appearance, behavior, etc., so far as they are interpreted as distinctive signs of that being" (*ibid.*, p. 37).

[26] *Ibid.*, p. 112.

If voice stereotypes are constructed on the basis of the racial and class standards of the listener, then the individual voice personality is the result of its variations from a given accepted standard. Where not too pronounced and sensorially pleasing, as for instance a slight southern drawl in a northern community, the effect is probably to increase the vividness of the impression made upon the listener. On the other hand, a too great variation from the accepted pattern militates against the speaker. These then are some of the considerations which must be kept in mind when adapting the voice to the presentation of the advertising message over the radio.

Before summarizing the preceding discussion of the psychological phases of broadcast advertising, brief mention should be made of the memory aspect of radio, especially as it relates to repetition. Because of the nature of broadcasting, programs are without exception broadcast at time-intervals no greater than one week, while many of them are presented several times during the week or even every day. This insures a continuity of effort and resulting deep impression of the program upon the listener, which in the estimation of several advertising research experts is one of the important factors in such success as radio broadcast advertising thus far has achieved.[27]

The question may properly be asked as to what this psychological analysis of radio broadcast advertising has revealed. The following conclusions summarize the situation as it appears in the light of present knowledge:

1. With regard to the component parts available for use in the presentation of the advertising message, visual advertising possesses the advantage of the illustration, which can only be approximated in part by broadcast advertising, either through direct or indirect product dramatization, or the dramatization of the commercial announcement. From the psychological point of view the indirect dramatization of the product and that of the commercial announcement seem to possess the greatest potentialities.

2. On the other hand, broadcast advertising possesses the appeal of the human voice, which, if used correctly in terms of correlation with the emotional appeal contained in a specific announcement, and also in terms of existing voice stereotypes and the principles governing the development of individual voice personality, constitutes one of the most potent selling forces at the disposal of radio, one which can only partially be approximated by visual advertising through vividness of the written copy.

3. Because of the nature of broadcasting, requiring programs repeated at regular intervals, there seems to be a greater impetus toward regularity of advertising effort, usually at weekly and often more closely recurring intervals, thus tending to give broadcast advertising a relatively greater effectiveness as regards the remembering of its sales effort.

4. Because of the item of previous interest, aroused by listener interest in the program proper, as well as because of a number of less conclusive factors, broadcast advertising seems to have a slightly less distraction than may be the case with regard to visual advertising. Additional experimental data are necessary before any certain conclusions can be drawn in this field. In the

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[27] This will be discussed more thoroughly in the chapters dealing with current broadcasting practice.

matter of perception existing material offers still less conclusive results.

5. Because of the presentation of both the sales message and editorial material (entertainment part of the program) by the advertiser, broadcast advertising seems to offer especially great potential rewards to the enterprising and able advertiser, and to impose a similar penalty upon the mediocre sponsor. This also cannot be stated with complete conclusiveness until detailed case studies are available upon which a final judgment can be based.

6. As far as is revealed by an examination of the psychological aspects of the situation, and taking into consideration the present state of knowledge in the field, no comparison can be made regarding the relative general supremacy of visual as against broadcast advertising or vice versa. It probably will never be primarily a question of comparison on this basis, but rather of specific abilities to meet individual contingencies, decision being based upon a knowledge of the similarities and dissimilarities of the two types of media.

CHAPTER III

ECONOMIC BASES: EXTENT AND NATURE OF THE LISTENING AUDIENCE

Thus far a discussion has been presented, first, of the basic satisfaction derived from radio broadcasting, and which in turn constitutes the reason for its widespread public appeal; and, second, of the psychological factors underlying the ability of broadcasting effectively to present the sales message to the listener. However, the successful functioning of radio broadcasting as an advertising medium depends upon more considerations than merely a basic popularity and a psychological adaptability to carrying the advertising message. Advertising involves mass appeal, and before it can be said with certainty that broadcasting constitutes a satisfactory medium, it must be determined, first, that the fundamental appeal of radio has created a sufficiently large potential listening audience economically to justify its use for advertising purposes, and, second, that an adequate broadcasting structure exists whereby this audience may be reached by the advertiser. An answer to the first of these questions constitutes the subject matter of this chapter, while the second problem will be discussed in those which immediately follow.

The rise in the radio listening audience in the United States during the past decade is presented in Table II.

In so far as it is estimated that there are between 35,000,000 and 37,000,000 receiving sets in the world,[1] this means that approximately 45 per cent of all sets in operation are located in the United States. Because of the very tentative nature of the annual estimates, it is difficult to make any generalization regarding the annual rate of growth other than to point out that it has been comparatively steady. From April, 1930, when the radio census was taken, to April, 1932, there was a gain of 38.4 per cent in the number of sets in operation in this country. A general conception of the increase in the diffusion of radio receiving set ownership among the population can be secured from the fact that in 1932 in the neighborhood of 55.7 per cent of the families in the United States possessed radio sets, as compared with 40.3 per cent in 1930.

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[1] *Radio Markets of the World, 1932,* U.S. Department of Commerce, p. 27.

Total figures, in themselves, are of little use to the broadcast advertiser. Vastly more important are factors such as the relative distribution of radio set ownership between different sections of the country, as regards urban and rural areas, communities of different size, as well as by economic, racial, national, and similar groups. A factor of equal interest is the extent to which the advertiser may expect to make his potential audience into an actual one, a matter which depends primarily upon listener habits with respect to the use of the radio, and other like features.

TABLE II

ESTIMATED NUMBER OF RECEIVING SETS IN USE IN THE UNITED STATES, 1922–32*

Year	Number of Sets in Use
1922	60,000
1923	1,500,000
1924	3,000,000
1925	4,000,000
1926	5,000,000
1927	6,500,000
1928	7,700,000
1929	9,000,000
1930	12,048,762
1931	15,000,000
1932	16,679,253

* Source of data for 1922–29, inclusive, and for 1931 is *Radio Retailing*, published by the McGraw-Hill Company. The 1930 figure is taken from the United States Census, and the 1932 figure from *Radio Markets of the World, 1932*, published by the Department of Commerce. In each case the source selected has constituted the most accurate available. The general comparability of sources is indicated by the fact that in the instance where comparable data are available, 1932, the McGraw-Hill estimate for March 1 is 16,545,245 sets, while the Department of Commerce estimate for April 1 is 16,679,253. A discrepancy of dates should be noted: 1922–29 and 1931 being as of January 1 and 1930 and 1932 as of April 1. Since all the figures are estimates and contain a good deal of error at best, this is unimportant statistically.

Data seem to indicate that, with respect to receiving set ownership, the United States divides itself into three relatively distinct and internally homogeneous areas.[2] The first and most important of these may be called the Northern Area and comprises the great district lying north of the Mason and Dixon line and extending westward to Kansas, Nebraska, and the Dakotas, which are included within its boundaries. Thus this area embraces all of New England, the Middle Atlantic states, and the North Central district of the country. In 1930 there were located in it 76.4 per cent of the receiving sets in the United States. The second radio listening area might be termed the Southern Area, and includes the territory lying south of the Mason and Dixon line and having as its western extremities the states of Texas and Oklahoma. According to 1930 Census figures, 11.9 per cent of the total radio-owning families in the country reside in this region. The third and final area, the Far Western Area, includes the Mountain and Pacific states, and contains 11.7 per cent of the radio families in the United States. The proportion of radio-owning to total families within each of these major areas was as follows in 1930: in the Northern Area 51.1 per cent of all families owned radios; in the Southern Area 16.2 per cent, while in the Far Western Area, 43.9 per cent possessed receiving sets. These percentages are comparable to the national average of 40.3 per cent for the same year.

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[2] All data presented regarding geographical distribution of set ownership are taken from the Census of 1930, and therefore are as of that year. These are the most recent data available on the subject.

Thus the Northern Area is seen to be the most important radio listening district in the country both with regard to total number of listeners and the proportion of total families which can be reached by means of radio broadcasting. While the Southern Area ranks second in the matter of number of listeners, it is a very poor third as far as the percentage of families owning radios is concerned. Though the limited population of the Far Western Area makes it relatively unimportant from the viewpoint of total listeners, the diffusion of radio receiving set ownership is above the national average in this region.

The comparative homogeneity of set ownership, within each of the three areas defined above, is indicated in Table III, which shows the percentage of families owning receiving sets for the areas in question as well as for the Census districts and states contained within them.

It will be noted from Table III that, in the case of both the Northern and Southern areas, there is little variation between the percentage of receiving set ownership for the area as a whole and of the individual census districts comprising it. This is not the case in the Far Western Area, where a greater lack of uniformity is evidenced. This apparent lack of homogeneity is explained by the fact that the Pacific states, which enjoy the greater diffusion of radio ownership, embrace approximately 70

TABLE III

RELATIVE PROPORTION OF FAMILIES HAVING RADIO SETS IN VARIOUS STATES AND AREAS*

Division and State	Percentage of Families With Radios
United States	40.3
NORTHERN AREA	51.1
New England	53.8
Maine	39.2
New Hampshire	44.4
Vermont	44.6
Massachusetts	57.6
Rhode Island	57.1
Connecticut	54.7
Middle Atlantic	55.3
New York	57.9
New Jersey	63.4
Pennsylvania	48.1
East North Central	50.2
Ohio	47.7
Indiana	41.6
Illinois	55.6
Michigan	50.6
Wisconsin	51.0
West North Central	43.1
Minnesota	47.3
Iowa	48.5
Missouri	37.4
North Dakota	40.9
South Dakota	44.2
Nebraska	47.9
Kansas	38.9
SOUTHERN AREA	16.2
South Atlantic	19.0
Delaware	45.9
Maryland	42.9
District of Columbia	53.9
South Atlantic—Continued	
Virginia	18.2
West Virginia	23.3
North Carolina	11.2
South Carolina	7.6
Georgia	9.9
Florida	15.4
East South Central	12.3
Kentucky	18.3
Tennessee	14.3
Alabama	9.5
Mississippi	5.4
West South Central	16.5
Arkansas	9.1
Louisiana	11.2
Oklahoma	21.6
Texas	18.6
WESTERN AREA	43.9
Mountain	30.9
Montana	31.9
Idaho	30.3
Wyoming	34.1
Colorado	37.8
New Mexico	11.5
Arizona	18.1
Utah	41.1
Nevada	30.6
Pacific	49.1
Washington	42.3
Oregon	43.5
California	52.0

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* Data here given are taken from the U.S. Census (1930). The percentage of families owning radios in various areas, such as the Northern Area, or districts such as New England, represents the proportion of all radio-owning to total families within the area or district.

per cent of the total families in the area and 80 per cent of the radio families. The lack of homogeneity between states, however, is more pronounced, though not sufficient to nullify the validity of the basic areas. The variations in set ownership percentage in this case are explained primarily by the relative urbanization of the various states, and on racial and economic considerations.

TABLE IV

COMPARISON OF THE PROPORTION OF TOTAL FAMILIES, RADIO FAMILIES, NET RETAIL SALES, RETAIL OUTLETS, INCOME TAX RETURNS, AND TOTAL RADIO FACILITIES IN EACH OF THREE MAJOR RADIO LISTENER AREAS

Radio Listener Area	Percentage of Total Families*	Percentage of Radio Families*	Percentage of Net Retail Sales†	Percentage of Retail Outlets†	Percentage of Income Tax Returns‡	Percentage of Total Radio Facilities§
Northern	60.0	76.4	67.5	72.5	63.7	52.2
Southern	28.9	11.9	20.5	15.1	25.5	29.3
Far western	11.1	11.7	12.0	12.4	10.8	18.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Census of Population, Radio Division, mimeographed reports.

† Census of Distribution, *Preliminary Reports*, p. 9.

‡ *Sales Opportunities 1931* (Curtis Publishing Co.).

§ *Fifth Annual Report of the Federal Radio Commission* (1931). Based on Table II, pp. 42–43. Under the allocation plan now in force, stations of varying power and hours of operation are assigned different units of value (based thus on service rendered), and each of the five administrative zones are theoretically allotted an equal number of units of such facilities. The radio facilities referred to in the table are in terms of these units.

As has been noted previously, no accurate data on receiving set ownership by different geographical units exist as of a date later than 1930, so that it is impossible to state what changes have taken place in this respect since the time of the radio census. In the case of all ensuing information, the national increase has been prorated among the various states according to their previous set ownership, and not on the basis of actual sales within their respective boundaries.

A comparison of the relative economic importance of the three major listener areas is found in Table IV, and presents an even clearer picture than thus far has been indicated of their comparative significance to the advertiser and distributor of goods.

From Table IV it becomes evident that, at least as far as the potential audience is concerned, radio broadcasting is capable of reaching a larger proportion of families in the economically most important Northern Area than in any other district. This area, accounting for more than two-thirds of the annual net sales, almost three-fourths of the retail outlets, and 60.0 per cent of the total population, in turn embraces more than three-quarters of the radio families in the country. It is only in the Southern Area that the potential audience is relatively weak. The significance of this fact will become more evident when rural-urban and racial variations in set ownership are analyzed.

Before entering upon a discussion of these factors, however, one additional table will be presented which should be of especial interest to broadcasters and advertisers accustomed to thinking of radio in terms of the five administrative zones established under the Radio Act of 1927, and which will indicate the relative importance of each of them from the distributive viewpoint. These zones, it should be noted, were created originally merely as administrative subdivisions, but took on added significance under the Davis Amendment[3] which required that broadcasting facilities be distributed equally among them. They are based upon a division of the total population of the country into five almost equal parts; however, taking no account of the fact that radio receiving set ownership is unevenly distributed among the total population.

The First Zone comprises all of New England, New York, New Jersey, Delaware, Maryland and the District of Columbia.[4] Pennsylvania, Virginia, West Virginia, Kentucky, Ohio, and Michigan constitute the Second Zone. All of the South Atlantic and South Central states, with the exception of the two located in the First Zone and three in the Second Zone, are allocated to the Third Zone. The entire North Central district of the country, other than Ohio and Michigan, lies in the Fourth Zone, while the Fifth Zone embraces the Mountain and Pacific states and is analogous to the Far Western Area in the economic divisions.

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[3] 45 Stat. L. 373. Passed March 28, 1928. The degree to which its provisions have been followed, and the economic and social significance of both its underlying theory and actual results, will be discussed later in the study.

[4] Territorial units such as the Virgin Islands and Porto Rico, Hawaii, and Alaska are included in the First and Fifth zones, respectively, but their facilities are too meager to be of any significance. An amendment is now before Congress to exclude them from the zone structure.

The relative proportion of radio families, net sales and similar factors located within each of them in 1930, will be found in Table V.

Since the First, Second, and Fourth Zones lie mostly in the Northern listening area, and the Third Zone comprises the major portion of the Southern Area, the same conclusions regarding the location of the potential listening audience is to be drawn from this table as from the preceding one.

TABLE V

COMPARISON OF THE PROPORTION OF TOTAL FAMILIES, RADIO FAMILIES, NET RETAIL SALES, RETAIL OUTLETS, AND TOTAL RADIO FACILITIES IN EACH OF THE FIVE ADMINISTRATIVE ZONES OF THE FEDERAL RADIO COMMISSION*

Radio Zone	Percentage of Total Families	Percentage of Radio Families	Percentage of Net Retail Sales	Percentage of Retail Outlets	Percentage of Total Radio Facilities
I.	23.0	31.3	27.8	25.1	17.3
II.	22.0	23.0	21.9	22.4	16.9
III.	23.0	7.2	14.9	19.1	21.3
IV.	22.0	26.7	23.2	22.7	23.2
V.	10.0	11.8	12.2	10.7	21.3
Total	100.0	100.0	100.0	100.0	100.0

* Sources of data for this table are the same as for the preceding one.

A comparison of radio receiving set ownership in urban and rural districts, as well as with respect to communities of different size, also is of interest. Thus it was revealed in the 1930 Census that 50.0 per cent of the urban families of the country possessed receiving sets, 20.8 per cent of the rural farm families, 33.7 per cent of rural non-farm families (including many suburban residents not included in the urban areas as understood by the Census), and that 21.0 per cent of all farm families owned radios.

From this it might be assumed that radio broadcasting constitutes a rather poor medium wherewith to reach the farm market of the country. This, however, is only a half-truth since geographical variations in farm receiving set ownership seriously modify this conclusion. Thus, in 1930, the average ownership of radio sets among farm families in the Southern Area constituted but 5.0 per cent of all farm families in the region. These in turn, numbered 3,390,798 and comprised 50.8 per cent of the entire farm population of the United States—to be sure, the poorer half of our farm population. In the case of the other half of the country's farm population, located primarily in the Middle Atlantic and North Central states, the percentage of set ownership was 45.2 per cent as compared with 40.3 per cent for the country as a whole. Similar marked differences exist with respect to the urban set ownership in the Southern Area, which was revealed as being 28.6 per cent of total families, as against 54.7 per cent in other parts of the country.

Differences in the diffusion of set ownership in communities of different size also exist. In New York City the percentage of set ownership in 1930 was 59.1 per cent; in Philadelphia 56.3 per cent; and in Chicago 63.2 per cent. In a sample chosen at random from among the ninety cities of more than 100,000 in population, exclusive of the three mentioned above, the average percentage of set ownership[5] was 50.3 per cent, while the proportion of radio to total families in fifty towns of from 10,000 to 25,000 in size, scattered throughout the country, was 47.1 per cent.

An analysis of the relative proportion of radio to total families among the foreign and native white families, and among negroes, affords a partial indication of the reason for the relatively low degree of set ownership in the Southern Area. This is presented in Table VI.

From the table one notices a number of interesting tendencies. From the viewpoint of potential circulation, radio is a poor medium to reach the negro population, the low proportion of set ownership of which also goes a long way to explaining the situation in the Southern Area. This is clarified to an even greater degree when one compares the national average degree of receiving set ownership among native white farm population, 24.2 per cent in all, with the 45.2 per cent ownership of farmers in the Northern and Far Western areas. Since in this case the comparison is between native white farmers for the most part—the total number of foreign-born farm families in this country being relatively unimportant—the almost inevitable conclusion is that the southern farmer is on the average less liable to own a radio than is a farmer in some other section of the country.

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[5] The average referred to here is a weighted one, each city entering into the computation to the extent of the number of its families, radio and non-radio.

Finally, the question arises as to the diffusion of receiving set ownership among various economic classes. Data regarding this point are difficult to secure, while those which do exist are so slight as to be relatively inconclusive. From it, though, it may be possible to gain at least some inkling of what may be the trend in this field.

In the study of 18,024 families conducted by Dr. Daniel Starch for the National Broadcasting Company, and published by them in 1929 and in revised form in 1930, it was indicated that the monthly rental of homes of radio-owning families was 41.0 per cent higher than in the case of non-radio families.[6] From this fact it seems that there is a tendency for receiving set ownership to be concentrated in the upper or at least higher than average income levels. Since the data on which the study was based were collected primarily in the spring of 1928,[7] this conclusion may have been quite correct for that period, even though the smallness of the sample deprives it of a certain amount of finality.

TABLE VI*

COLOR AND NATIVITY OF FAMILIES HAVING RADIOS

Type of Family	Percentage of Total Families in Group Having Radios		
	Urban	Farm	Total
Native white	56.3	24.2	44.4
Foreign-born white	46.2	32.2	43.6
Negroes	14.4	.3	7.5
Entire country	50.0	21.0	40.3

* *Radio Census*, Census of Population, 1930.

However, there is considerable doubt as to whether the figure

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[6] *Revised Study of Radio Broadcasting*, by Daniel Starch, Ph.D. (National Broadcasting Co., 1930), pp. 18–20A.

[7] Of the total interviews 17,099 were made between March 15 and April 15, 1928, while the remaining 925 were secured between November 15, 1929, and January 1, 1930. The latter were confined to the Pacific and Mountain states which had not been covered in the previous survey.

of relative rental value of the home, as found in the Starch report, accurately describes the situation of receiving set ownership today, as it applies to various economic groups. Ownership of automobiles and use of telephones are commonly accepted as indicating a more than average, but by no means excessively high, standard of living. For this reason, a comparison of the relative degree of receiving set ownership to that of the foregoing articles is of interest. The comparison is confined to the primary listening areas of Yankee Network stations in a number of New England cities, these areas including in each case the city in which the station was located and the several adjoining counties wherein it was listened to regularly by a moderately large proportion of the listening public. As such, they embrace primarily an urban and suburban population, with a small number of rural families added to them. The number of receiving sets, residence telephones, and automobiles in the listening area centering around each of the towns is shown in Table VII. From the table it is evident that, at least as far as New England is concerned, radio receiving set ownership is more widely scattered throughout the community than either that of telephones or automobiles. This, in turn, seems to point to a rather wide distribution of radio ownership among all segments of the community. This conclusion finds additional support in a comparison of receiving set ownership and the number of residence tele-

TABLE VII

COMPARATIVE RADIO RECEIVING SET, AUTOMOBILE OWNERSHIP AND RESIDENCE TELEPHONES IN USE IN REPRESENTATIVE NEW ENGLAND TOWNS AND THEIR IMMEDIATE LISTENING AREAS*

City	Number of Radio Sets	Number of Telephones	Number of Automobiles
Boston, Mass.	631,738	458,376	532,340
Providence, R.I.	130,540	81,448	109,091
Worcester, Mass.	87,849	61,718	76,997
Hartford, Conn.	89,598	66,995	91,485
Springfield, Mass.	63,171	46,294	58,605
New Bedford, Mass.	55,694	39,202	50,544
Manchester, N.H.	29,827	26,606	33,224
Bangor, Me.	26,971	24,982	36,159

* *The Yankee Network of New England* (Shepard Broadcasting Service, Inc., 1932), pp. 45–47.

phones in use in Pennsylvania, the other area for which information has been available. Data regarding a number of representative Pennsylvania communities are found in Table VIII.

Though receiving set ownership does not exceed the number of residence telephones in use in all cases, the two parallel each other very closely with few exceptions. It also is interesting to note that in the majority of instances wherein receiving set ownership lags behind the number of residence telephones in use (Altoona, New Castle, Washington, Carbondale and Lancaster), the towns in question are situated in the mountainous parts of Pennsylvania, where reception is notoriously poor. Thus in the case of Altoona, it is almost impossible to secure satisfactory re-

TABLE VIII

COMPARISON OF RADIO SET OWNERSHIP AND ESTIMATED NUMBER OF RESIDENCE TELEPHONES IN USE IN REPRESENTATIVE PENNSYLVANIA COMMUNITIES AS OF JULY, 1930*

Town	Number of Receiving Sets	Estimated Number of Residence Telephones
Philadelphia	258,640	198,551†
Pittsburgh	81,279	90,030
Scranton	12,902	15,490
Reading	15,553	14,477
Allentown	14,293	10,649
Harrisburg	12,053	12,458
Altoona	8,913	11,532
Wilkes-Barre	8,024	7,518
Lancaster	7,572	8,507
Bethlehem	7,443	5,684
New Castle	5,047	7,637
Pottstown	3,108	2,117
Washington	2,957	4,205
Sunbury	2,253	2,133†
Carbondale	1,933	2,170
Monessen	1,591	1,217
Jeanette	1,505	1,449
Clairton	1,273	975†
Mt. Carmel	1,263	740†

* The number of residence telephones has been furnished by the Bell Telephone Company. Since these are given as of the base rate area which often includes more than the city proper, it has been necessary to estimate the number of residence telephones in the city as against the base rate area. Since the total population was known in each instance for both the city proper and the base rate area, it has been possible to compute the number of city telephones by a simple proportion, assuming a similar degree of use of telephones in the city and its immediate environs. Since these environs are chiefly suburbs and above the average income level, this assumption seems a sound one, erring if at all on the side of conservatism. Set figures are from the U.S. Census.

† Actual count. Base rate area coincides with town.

ception of any except a very few outside stations during the daytime, and only these when conditions are especially favorable.[8] Since Lancaster does not lie in such territory, the explanation of its low set ownership may be found in the large number of Amish or so-called "plain people" who live there, and to whom the radio is quite probably unacceptable on religious grounds.

From the two instances just cited, it seems that the Starch survey no longer describes the situation with respect to radio receiving set ownership among various economic groups within the community as it is today. This is all the more probable when one considers the introduction of the midget set and the radical downward revision of all receiving set prices that was experienced by the industry shortly after the Starch survey was completed. Radio broadcasting can therefore be said to reach all economic classes within the community that are of any interest to the advertiser.

It is now possible to summarize the situation with respect to the potential listening audience for radio broadcasting programs. It has been seen that the radio audience of the country totals approximately seventeen million people and that more than one out of every two families owns receiving sets, thus virtually affording half of the American public as a potential group to be reached and affected by broadcast advertising. Since geographical variations are of more interest than is the mere number of total listeners, the relative distribution of radio set ownership throughout the country is of especial significance. Here it was shown that three major listener areas existed: the Northern Area containing 76.4 per cent of all radio sets and accounting for 67.5 per cent of the country's retail trade; the Southern Area with 11.9 per cent of the sets and doing 20.5 per cent of the nation's retail business; and the Far Western Area, wherein are found 11.7 per cent of the radio sets, and where 12.0 per cent of the retail trade of the country is transacted. Because of its relatively low degree of urbanization, its unfavorable economic situation, and its large negro population—only 14.4 per cent of the urban and 0.3 per cent of the farm negroes own receiving sets—the South can be least effectively reached by means of broadcast advertising. In addition to variations with respect to the radio audience in different parts of the country, it was revealed that there was a slight tendency toward a larger proportion of radio to total families in the larger cities than in the smaller towns, and for the average set ownership in urban areas to be slightly greater than in farming districts. In the case of the more important half of the country's farm population situated primarily in the Middle Atlantic states and North Central region, radio broadcasting constituted a satisfactory medium of approach, 45.2 per cent of farm families owning radios. In the Southern Area this was not the case, only 5.0 per cent of all farm families owning radios, and with sound reasons existing for believing that the percentage of set ownership among the native white farmers in this area was materially lower than in other parts of the country. Finally, evidence was produced pointing to the probability of a widespread ownership of radio receiving sets on the part of all income classes in the community.

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[8] Roy F. Thompson, manager of Station WFBG, Altoona, in interview.

The potential radio audience, however, is but the groundwork of the effective circulation provided the user of broadcast advertising. The actual circulation for a given program depends upon a variety of factors, the most important of which include the following: (1) the general listening habits of the population; (2) the average circulation of the individual station or stations over which the program is broadcast; (3) the inherent appeal of the sponsor's own program both as to the adaptability of its basic type to the psychology of the audience and as to the showmanship employed in its presentation; and (4) competition from other programs broadcast in the same territory at the same hour. All of these factors operate both nationally and with regard to specific variations in different parts of the country. Only the first of them, however, constitutes appropriate subject matter for our present discussion.

Habits regarding the use of the radio vary considerably, depending upon a number of circumstances. They differ with respect to hours of the day at which the radio is used, and show some slight variation on the basis of days of the week and seasons of the year. Likewise, different basic program types, such as comedy, sports broadcasts, and the like, tend to meet with varying acceptance on the part of the radio public, and, especially, particular segments of it. Differences in behavior with regard to these matters in themselves will vary as between urban and rural areas, towns of different size, different sections of the country, sex, age, racial, cultural, and other special interest groups within the community. Finally, minor variations exist for specific localities depending upon local customs, such as the night usually reserved for church socials and similar matters.

At the present time there is a great need for fundamental data in this field which are of sufficient comprehensiveness and detail to make possible the presentation of definite conclusions regarding listener behavior. The field of research itself is so new,[9] the diversity of methods employed so great, and the angle of approach to the problem in itself so diversified as to make the comparison of existing data a most difficult task, while there is no single study which combines comprehensiveness of data and soundness of method to warrant its use as a basis for generalization in this field.[10] This does not mean, however, that no research of fundamental value has been done in the field of broadcast advertising. Many of the pioneer efforts in the field are of extreme interest, and, lacking any better information, of considerable value.[11] Moreover, all of the work done has contributed materially to the growing knowledge of the problem of research technique in the broadcast advertising field, a result of no small importance to the industry. However, the fact remains that listener data are lamentably weak, and that, as a result, little conclusive evidence can be presented in this field.[12] In view of this, one of the most valuable things which could occur in the industry would be the scientific analysis of existing methods of research with a view of determining both their basic value and their specific fitness for securing information regarding given subjects of investigation, together with the general application of these methods to an extent which would make possible the comparison of results. Not only would such a step be of marked value within the industry itself, but much money would be saved which is now wasted in useless research. Significant results of practical value would also be secured and in addition it would aid materially in fostering a clearer appreciation of the potentialities of broadcast advertising on the part of the general public and advertiser alike.

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[9] The newness of the field may be judged from the fact that the Starch study referred to previously was the first to be made, while one conducted by the writer in December, 1928, probably was the second.

[10] Methods of listener study vary greatly. Some investigators analyze fan mail, some use mail questionnaires, others telephone calls, and still others house-to-house surveys. The basic approach varies even more greatly. Some measure habits, asking listeners what they habitually do; others measure behavior at a series of specific moments with habits deduced therefrom. Similar disparity exists in the choice of sample, and indeed at almost any stage of the work.

[11] In this category should be placed the "Listening Area" and "Price Waterhouse" studies of the Columbia Broadcasting System, and the very excellent studies on "Does Radio Sell Goods" made for them by Professor Robert E. Elder, of the Massachusetts Institute of Technology. The "Price Waterhouse studies" are of relative network popularity and are probably as sound as can be accomplished in this field within the limits of practical expenditure of money. The "Listening Area studies" define qualitative areas of regular listening to Columbia stations, and are not quite as acceptable from the viewpoint of pure research. Other studies of interest include the Crossley surveys made for the Association of National Advertisers, the method of which is open to some question as to its adaptability to the scope of the study; work such as that of Dr. Robert Riegel, of the University of Buffalo, and, on the engineering side, though closely related to listener studies, the very important and provocative work on station coverage done by Dr. C. M. Jansky of Washington, D.C.

In so far as a comprehensive survey of listener behavior would entail a most expensive and detailed research of its own, the discussion will here be limited to a presentation of the items regarding which there seems to be more or less common agreement, and to studies conducted in Buffalo and Philadelphia, by methods which insure a comparability of results.[13] Thus the groundwork will be afforded for an appreciation of the forces which shape the actual listener audience from the entire potential group of receiving set owners.

The variation in number of listeners at different hours of the day is probably the most important single item of listener data.

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[12] The chief difficulties with present research in this field are: (1) a tendency to deduce results for the attainment of which the methods employed are psychologically and statistically unsuited; (2) inadequate samples, especially in national studies and where behavior is measured at given moments; (3) a desire to cover too wide areas rather than study a localized district thoroughly, and (4) too great concentration on competitive aspects such as station popularity rather than upon the fundamentals which will sell radio as a whole. The lack of comparable localized studies already has been mentioned.

[13] *A Merchandising Interpretation of Listener Reaction and Habits with Respect to Radio Broadcasting,* by Herman S. Hettinger (manuscript, 1929); *A Study of the Habits and Preferences of Radio Listeners in the Philadelphia Buying Area,* compiled for and published by the WCAU Broadcasting Company, 1930; *Analysis of the Summer Radio Audience in the Philadelphia Buying Area,* also for WCAU, by Herman S. Hettinger in collaboration with Richard R. Mead (1931). An almost identical method was applied by Dr. Robert Riegel, of the University of Buffalo, in the *Buffalo Radio Audience,* compiled for Station WBEN, 1932. The high degree of correlation existing between different years and with respect to the two towns indicates the general satisfactoriness of the method.

With regard to it, there are at least several features in which all of the researches that have been done seem at least basically to be in agreement. The first of these is the fact that the evening audience is on the average two to three times as great as the daytime audience when measured on an hourly basis. The second point of agreement is that in most cases the number of listeners tuned in during the morning and afternoon hours are almost the same, with somewhat greater variations existing as between towns and methods of research in this instance than in the former.[14] The general aspect of the listening-audience curve during the average weekday is indicated in Chart I.[15] The chart indicates the average proportion of total listeners tuned in at various hours of the day on any day from Monday to Friday, inclusive.[16]

From the chart it will be noted that with the exception of the noon and evening meal periods, together with a slight lag in the evening audience in Buffalo, the two curves are practically identical. Since the Philadelphia curve is for the summer and the Buffalo curve for winter, it is difficult to tell how much of the variation is on a seasonal basis. The 1930 Philadelphia curve fits the Buffalo one even more closely, but, since it represents the entire week rather than merely Monday to Friday, it would be less sound to compare it than to use the 1931 Philadelphia curve.

Several other thoughts are suggested at least tentatively by a comparison of the Philadelphia and Buffalo studies. The first of these is that Saturday listening varies very slightly from that of

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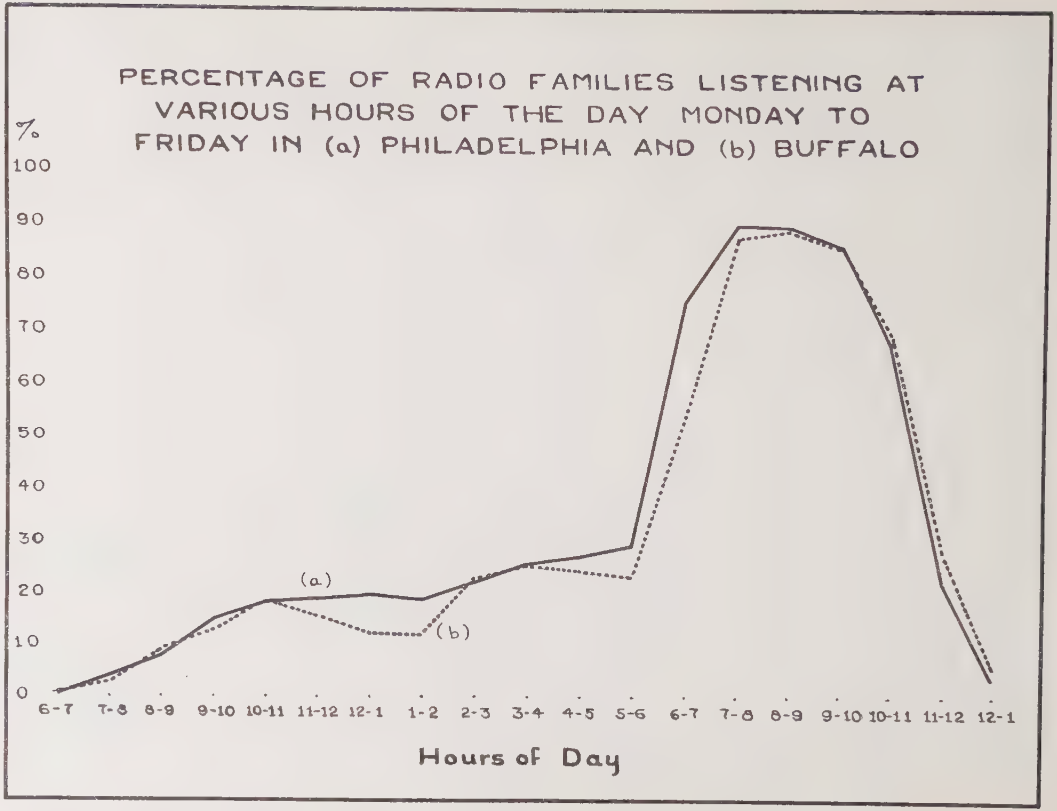
[14] In this case the researches of Herman S. Hettinger and Richard R. Mead in Philadelphia, the Buffalo study of Dr. Riegel, the work of Mr. Benjamin Soby for the Westinghouse stations in Pittsburgh and Springfield, Massachusetts, and the Crossley survey are all in extremely close agreement as to the contours of the listening curve if not with regard to actual percentages. As will be noted in the chart, Philadelphia and Buffalo are practically identical. There is less agreement on the morning-afternoon variation. Philadelphia and Buffalo show greater afternoon audiences. Some of the other studies show the opposite.

[15] "Metropolitan Radio Audiences," by Herman S. Hettinger; *Broadcast Advertising*, December, 1932.

[16] In *A Merchandising Analysis of Housewife Radio Listening Habits*, made under the writer's direction by Halsey D. Kellogg and Abner G. Walters, the variation at specific hours on various days mentioned are shown to be seldom more than 2 to 3 per cent. Other studies confirm this. See *Broadcasting*, April 15, 1932, for summary of the study.

CHART I


PERCENTAGE OF RADIO FAMILIES LISTENING AT VARIOUS HOURS OF THE DAY MONDAY TO FRIDAY IN (a) PHILADELPHIA AND (b) BUFFALO
%
100
90
80
70
60
50
40
30
20
10
0
(a)
(b)
6-7
7-8
8-9
9-10
10-11
11-12
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-1
Hours of Day

other week days as far as the hourly listener load is concerned, the only difference of note being a slight tendency toward a smaller evening audience. It is the writer's own belief, though he has no means of substantiating it, that this is probably more true of metropolitan centers than of smaller towns.

Another conclusion drawn from the studies is the relatively greater discrepancy between different communities as to the matter of Sunday listening. Here the Buffalo study showed a very different tendency, the number of listeners being much lower than Philadelphia in the morning and much higher in the afternoon. Again, how much of this is seasonal and how much of year-round duration is impossible to say at the moment. However, it is worth noting as a matter deserving careful consideration. The same tendency, however, is noted in Chart II, which indicates the difference of listening in Philadelphia proper, its immediate suburbs, and small outlying towns such as West Chester, Norristown, and similar communities in Pennsylvania and New Jersey. This tendency toward towns of different size to have rather marked variations in the hours of habitual listening is to be noted for weekdays as well as on Sunday, and is found in Chart III.[17] It is quite reasonable to assume that the Sunday variation would be greater than the weekday one, since, in the case of the former, life is less circumscribed by the necessities of daily living. Differences likewise are to be noted in both studies on the part of men and women, with women constituting the great daytime audience, as well as on the basis of income classes, though the latter are of relatively lesser significance. The writer has noted some slight tendency toward variations in age groups, but, except with regard to the younger children, these are of little importance. Thus, probably, differences in listening at various hours of the day arise mainly with regard to communities of different size, men and women, and with regard to Sunday. Differences on various days of the week are of no importance with the exception of Sunday, which is important both as regards to general trend and special seasonal differences. The average number of hours the radio is used by listeners is between four and six, with the former figure favored.[18]

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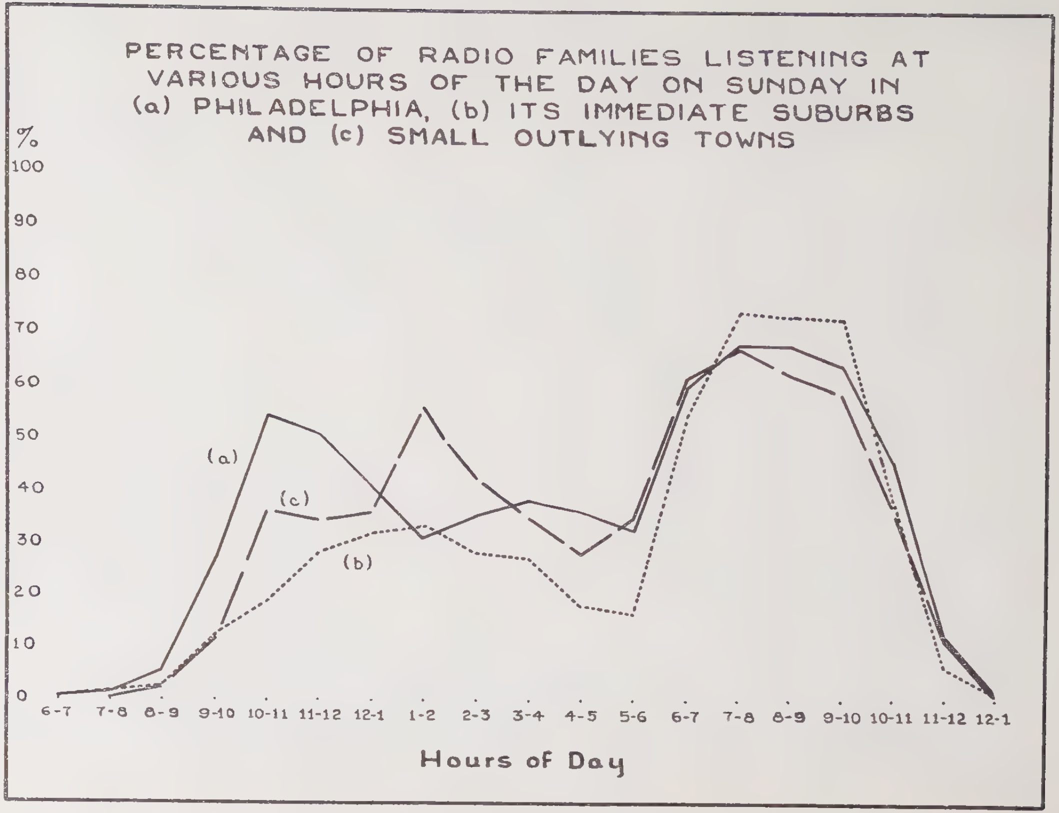
[17] "Metropolitan Radio Audiences."

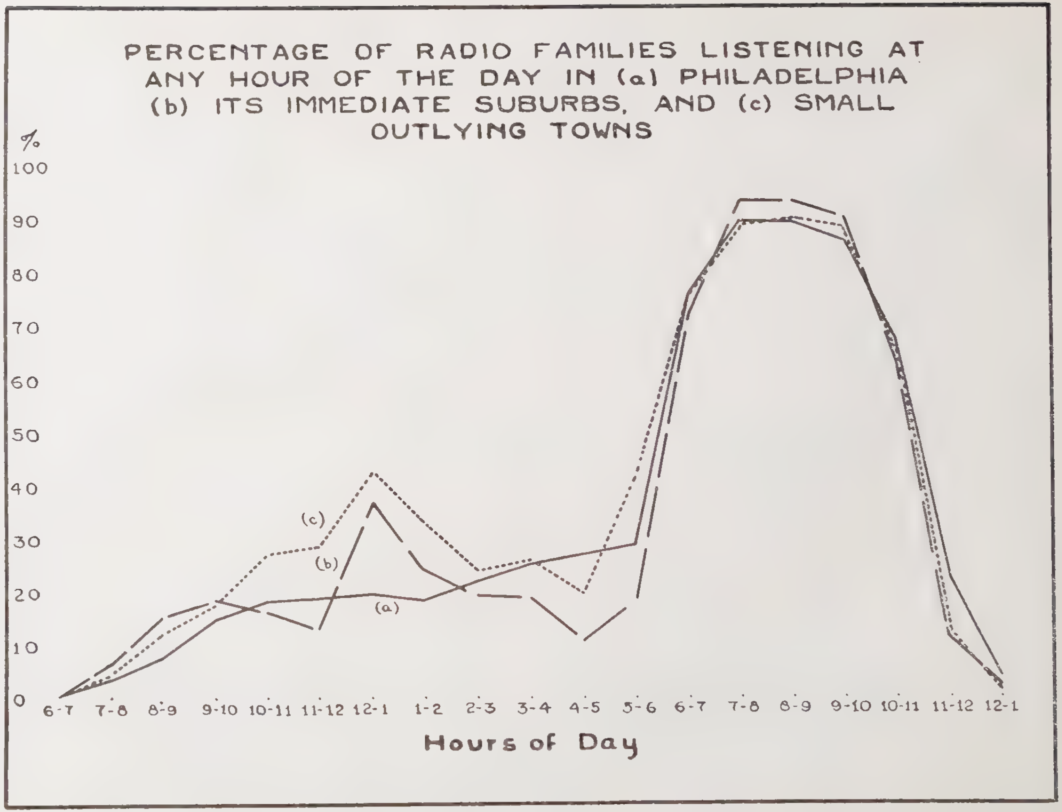
[18] *An Analysis of the Summer Radio Audience in Philadelphia Buying Area*, by Herman S. Hettinger and Richard R. Mead, p. 15.

CHART II



PERCENTAGE OF RADIO FAMILIES LISTENING AT VARIOUS HOURS OF THE DAY ON SUNDAY IN (a) PHILADELPHIA, (b) ITS IMMEDIATE SUBURBS AND (c) SMALL OUTLYING TOWNS

CHART III


PERCENTAGE OF RADIO FAMILIES LISTENING AT ANY HOUR OF THE DAY IN (a) PHILADELPHIA (b) ITS IMMEDIATE SUBURBS, AND (c) SMALL OUTLYING TOWNS
%
100
90
80
70
60
50
40
30
20
10
0
(a)
(b)
(c)
6-7
7-8
8-9
9-10
10-11
11-12
12-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-1
Hours of Day

With respect to the proportion of people listening on various days of the week, most studies are of general agreement that there is little difference on this subject. Most estimates vary from 60 per cent to 80 per cent as to the number of listeners prone to use their radio some time during every day of the week. The chief variation of importance seems to be in the case of week ends during the summer, where the Sunday audience is approximately 90 per cent that of the Monday to Friday average in Philadelphia.[19] This is a factor which probably will vary greatly between towns, especially in the summer, depending upon existing recreational facilities and similar features.

Seasonal variation in the size of the listening audience has been a moot question with broadcasters since the beginning of the industry. Though the evidence available is rather slight, there seems to be sound reason to believe that the dropping off in size during the summer months has been exaggerated. The tendency seems too much to have been one of executives visualizing the summer in terms of their own vacation and forgetting the great number of jobs where the vacation period was either nonexistent or limited to a few days. In this case estimates and researches available seem to indicate a decline in audience of little more than 10 per cent on the average weekday and reaching the lowest figure of approximately 80.0 per cent normal on the last Sunday in July and first Sunday of August when vacationing is at its peak.[20] In this case there are decided differences with regard to income groups with approximately two-thirds of the $5,000 and above class going away on vacations and only 21.1 per cent of the low income group, under $2,000, going away for any period of time at all. This factor probably is conditioned to a high degree by the nearness of resorts, so that in communities such as Boston the decline in the summer audience probably will be greater than in a city such as Philadelphia. The foregoing information, thus, is extremely tentative and no final and widely applicable conclusions can be drawn from it other than the barest general trend.

In addition to differences in listening on the basis of varying hours of the day, days of the week, and seasons of the year, each in turn interpreted in the light of varying communities, towns of different size, sex, age, and income groups, the determination of the actual audience for a given program is further conditioned by listener habit with regard to the choice of stations. Research authorities are in general agreement on the fact that the average listener tends to use three to four stations regularly, turning to the others, if at all, only when these have failed to give enjoyment. This is well summarized in a statement by L. D. Batson, of the Electrical Equipment Division of the Department of Commerce:[21] "Ultimately the owner tends to reach a stage where the one or two stations most easily tuned will be sampled, and if one has a satisfactory feature the dial is set for it and left until something discordant with the listener's mood develops, when the set will be shut off or another station tried." This means, therefore, that if the broadcaster is not on one of the regularly used stations in the area he will fail to reach a large portion of the people. Likewise it signifies that if he is on any of the two or three most popular stations, provided no too great

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[19] The Philadelphia surveys of Herman S. Hettinger and Richard R. Mead, the Buffalo survey of Professor Riegel, and the Elder surveys of the Columbia Broadcasting System—all are in general agreement on this matter.

[20] Crossley (1930) and the Philadelphia researches previously mentioned.

TABLE IX

PROPORTION OF PHILADELPHIA AND BUFFALO LISTENERS LIKING VARIOUS TYPES OF PROGRAMS

Type of Program	Percentage of Listeners Liking Program	
	Philadelphia (Per Cent)	Buffalo (Per Cent)
Music	99.8	*
Comedy	74.6	76.6
Drama	66.1	83.5†
News	54.7	53.1
Sports	62.4	63.4
Religious	39.9	46.9
Educational	19.3	43.7
Special features	27.6	43.1
Women's programs	15.0	21.2
Children's programs	47.6	51.7

* Not mentioned except in first choices due to wording of question.

† Approximation combining several Buffalo classifications.

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[21] *Radio Markets of the World 1932*, p. 25.

discrepancy exists between them, he is using a potentially satisfactory medium, and upon his program in competition with others broadcast rests the burden of winning the audience.

This leads to a brief discussion of the final limiting factor with respect to the actual audience, namely, the program likes and dislikes of the audience. At the outset it is well established that listeners seldom indeed prefer one type of program to the exclusion of all others. Therefore, their relative liking of certain types of programs will determine the basic number of listeners a given program can hope to reach at all. Those not interested in sports broadcasts are never part of the circulation, actual or potential, of a sports program. Variations in this field are so great and data so extremely tentative that no generalization is possible except with regard to decidedly local areas. A comparison of two of these, Buffalo and Philadelphia, is found in Tables IX and X.[22]

TABLE X

MUSICAL PREFERENCES OF PHILADELPHIA AND BUFFALO RADIO AUDIENCES

Type of Music	Percentage of Listeners Liking Type of Music	
	Philadelphia (Per Cent)	Buffalo (Per Cent)
Classical	31.4	36.1
Semi-classical	39.9	39.0
Dance	73.4	69.0
Sacred	27.7	15.7
Old-fashioned	27.7	42.7
Polish	....	8.3

These tables at least are illustrative of the type of data revealed in this field. As in the case of all other listener information, a great deal more fundamental material is required before listener behavior can be measured with any degree of conclusiveness.

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[22] Buffalo and Philadelphia studies previously referred to.

CHAPTER IV

ECONOMIC BASES: THE AVAILABLE BROADCASTING STRUCTURE—INDIVIDUAL STATIONS

There are two principal elements in the broadcasting structure of the United States, by means of which programs are carried to the approximately seventeen million listeners who comprise the potential audience for the medium, and out of whose number the advertiser carves his own particular circulation. The first of these is the individual broadcasting station. The second factor, until recently completely overshadowing the first, is the grouping and operation of a number of individual stations into networks, either national or regional in scope, and making possible the simultaneous presentation of a program over a wide territory. Regarding the middlemen such as time-brokers, station representatives, transcription companies, and similar organizations who function between the station and the advertising agency or program sponsor, no mention will be made. Discussion of them will be reserved until analysis is made of the actual use of the radio broadcasting structure as an advertising medium. The immediate analysis will be devoted, therefore, to the broadcasting structure existing for the purpose of transmitting programs to the listener, and of the significant factors of this structure as they involve broadcast advertising.

A knowledge of the structure available for reaching the potential circulation of the medium is of more than usual importance in the case of radio broadcasting. In the first place, radio broadcasting structure is of such recent development that even today it is in a comparative state of flux. Moreover, because of its newness, the full significance of the existing broadcasting structure is neither completely understood nor appreciated by the advertiser or the public at large. In addition, radio broadcasting technique itself is in a state of relative infancy so that the possibility of sweeping inventions or new applications of existing knowledge is by no means remote. Finally, since the radio broadcasting structure is definitely limited by the number of available wave-lengths, and not merely by the demand for facilities as in the case of magazines or newspapers, and, since the apportionment of these wave-lengths is a matter of governmental regulation and international treaty, it becomes a very much more complex question than does the structure of other media.[1] For these reasons a brief elementary discussion of the nature and trends in broadcasting structure must be considered, the individual stations being treated first and the question of network broadcasting being considered afterward.

At the present time there are approximately 600 broadcasting stations in the United States serving the American listening public.[2] Of these stations all but 40 are privately owned and operated. The exceptions to private ownership are stations owned either directly or indirectly by states and municipalities, including in this number the various state universities and similar institutions, but not privately owned schools and colleges.[3]

These stations operate on a total of ninety channels or wave-length assignments, lying within the 550–1,550 kilocycle band reserved exclusively for broadcasting by international convention. With regard to the power of stations and the proportion of wave-lengths assigned to each type of station, the following is the situation at the present time: (1) There are 237 so-called local stations, having a maximum power of 250 watts in daytime and 100 watts at night, and occupying six of the total ninety frequencies available to American broadcasters. These stations are designed primarily to give localized service within the immediate environs of the communities in which they are located. (2) Low-power regional stations, possessing a maximum night power of 1,000 watts and day power of 2,500 watts, comprise a total of 272 stations and occupy forty wave-lengths. A small number of these stations are reduced to lower operating power at certain intervals of the day to make way for Canadian stations on the same wave-length. Most of the stations of this class are either 500 or 1,000 watts in power and are designed for immediate local use over a slightly wider territory than those of the first class, in this case reaching at least some short distance into the rural areas. (3) High-power regional stations, of which there are 8, possessing power up to 5 kilowatts, and occupying four wave-lengths. Finally 90 clear channel stations ranging in power from 5 to 50 kilowatts and occupying forty wave-lengths, being designed to serve wide urban and rural areas, complete the structure.[4] There are 90 stations on these clear channels, approximately half of which were in simultaneous operation at night in 1931. Part-time stations include transmitters operated only during daylight at the location of the dominant station, and at night when the dominant station is silent, in which cases the power of the stations range from 50 watts to 20,000 watts. Of these stations, because of the allocation activities of the Federal Radio Commission to be discussed later in the chapter, no more than 397 are in simultaneous nighttime operation.[5] These stations insure satisfactory daytime reception to approximately 94.0 per cent of the population of the United States and nighttime reception to about 89.6 per cent of the country.[6] They represent an investment of over $49,000,000.[7]

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[1] If the rumored North American Conference occurs, and a widening of the wave band ensues, a major reallocation of stations in this country is certain to occur, with resulting fundamental modifications of structure of importance to all parties concerned in broadcasting.

[2] *The Sixth Annual Report of the Federal Radio Commission*, p. 25, lists 604 stations under its jurisdiction as of June 30, 1932, of which 5 are outside the immediate boundaries of the country, 1 in Porto Rico and 2 each in Hawaii and Alaska. Also *Radio Broadcast Stations of U.S.*, January 1, 1932.

[3] *Commercial Radio Advertising*, Federal Radio Commission (December, 1931), p. 13. With regard to most of the features herein reported the situation has not changed materially since that date.

Of these stations more than 90 per cent are available to use by the broadcast advertiser on the days and at the hours during which they are in operation.[8] This includes substantially all of the important stations in the country. All of the high-powered stations, those above 5,000 watts, are available for advertising purposes; while 88.8 per cent of the stations of over 1,000 watts and under 5,000 watts in power, 85.0 per cent of stations over 100 and under 1,000 watts, 95.0 per cent of the local 100-watt stations, and 79.0 per cent of those under 100 watts in power similarly accept broadcast advertising.[9] In addition to the strictly commercial stations, operated exclusively for private profit, 7 of the 12 state or municipally owned stations, 5 of the 28 religious stations, and 12 of the 44 educational stations accepted commercial advertising programs in December, 1931.[10] Due to the decline of state aid and other revenue experienced by many educational institutions, the number of educational stations accepting commercial programs has definitely increased, though the exact extent of this tendency is not known.[11]

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[4] *Commercial Radio Advertising,* Federal Radio Commission, p. 13.

[5] *Sixth Annual Report of the Federal Radio Commission,* p. 25.

[6] *Commercial Radio Advertising,* Federal Radio Commission, p. 12.

[7] *Ibid.,* p. 43.

[8] *Ibid.,* p. 22.

In order to achieve a clearer picture of the development of the radio broadcasting structure in the United States, it will be profitable to review, first, the trend in the number of stations during the past decade; second, the rise in station power and the other improvements of a technical nature which have resulted in increased range and quality of station service; and, finally, to discuss briefly the work of allocation of broadcasting facilities which has been carried on by the Federal Radio Commission and upon which the complexion of the present radio broadcasting structure of the country largely depends.

The trend in the number of broadcasting stations in operation in the United States is indicated in Table XI.

From the table it will be noted that there was a marked decline in stations during the period 1927–29, and that, since that date, there has been a tendency for the number of stations to remain comparatively static. The greatest number of stations existing in the country probably was higher than any figure appearing in the chart, since the most pronounced rise in station ownership was between the period June 30, 1926, and June 30, 1927, reaching an estimated peak of 732 stations during the early months of the latter year.[12]

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[9] *Ibid.*, p. 23.

[10] *Commercial Radio Advertising*, Federal Radio Commission, p. 22.

[11] Philip G. Loucks, managing director of the National Association of Broadcasters, to the writer.

[12] This rise was brought about by the breakdown of government radio regulations in April, 1926, when the United States Court for the Northern District of Illinois decided (*U.S.* v. *Zenith Radio Corporation*) that the Department of Commerce had no express power to establish broadcast regulations, the general tenor of which decision was further affirmed by an opinion of the attorney general. There followed a wild scramble for broadcasting stations (*The Federal Radio Commission*, by L. F. Schmeckebier [Brookings Institute], pp. 12–13, 23).

The decline in stations has been due to a number of reasons. Probably the principal one of these has been the matter of increasing costs of operation as radio has become stabilized and has taken on a definitely commercial aspect. Increased station power, together with other rising costs of operation including talent, program service, management and similar items, improved equipment required by the Commission, increased copyright fees, and similar factors, combined with the absence of the necessary revenue on the part of the poorly managed and often uneconomically located marginal stations, constituted one blade of the shears which cut many of them out of the broadcasting structure. The other blade was the direct work of the Commission, both in its early allocation work and in the continual weeding out of stations whose operation was not, in the "public interest, convenience and necessity," a matter which needs further detailed discussion. A conception of the financial requirements of broadcasting can be secured from the fact that it is estimated that the average capital required for a 1-kilowatt station is $44,900, with an annual maintenance expense of $64,400 exclu-

TABLE XI

NUMBER OF BROADCASTING STATIONS IN THE UNITED STATES, JUNE 30, 1922—JUNE 30,1932*

Year	Number of Stations
1922	382
1923	573
1924	535
1925	571
1926	528
1927	681
1928	677
1929	606
1930	618
1931	612
1932	604

* Figures for the years 1922–26, inclusive, are from the annual reports of *Commercial and Government Radio Stations of the United States*, published by the Radio Division of the Department of Commerce. Data for the following years are from Table I of the Report of the Chief Engineer, *Sixth Annual Report of the Federal Radio Commission*, 1932, p. 25. Station totals in all cases include a few broadcasters in the territorial possessions ranging annually from about five to seven stations. Since it has been almost impossible to separate these for the earlier years in a satisfactory manner, they have been left in for all years. It should be noted that estimates of stations do not always agree, those of the Department of Commerce varying from those of the Commission in certain instances. In these cases the latter have been taken as authoritative. Data for early years probably are very tentative.

sive of programs. The capital cost of a 5-kilowatt station is in the neighborhood of $127,000, and the annual maintenance charge, exclusive of talent, is $159,000; while for a 50-kilowatt station the capital charge is no less than $338,000, and the basic maintenance expense $296,150.[13]

More important than the trend in the number of stations has been the great increase in power on the part of broadcasting stations as a whole, as well as the marked rise in the number of stations of higher power. Thus, while the total stations in the country increased approximately 60.0 per cent since 1922 and 5.4 per cent since 1923, the total watt power at nighttime has increased fourteen and one-half times since 1923, or almost three hundred times faster than the number of stations. The general situation in this respect is indicated in Table XII which shows the relative proportion of stations of different power in the United States, annually since 1923, when power data first were available.

Several things should be noted concerning this table. The first of these is the very decided decline in the number of stations of less than 50 watts in power within recent years. A second feature of interest is the fact that it nevertheless is in the lower-powered stations, 100 and 500 watts primarily, where the greatest increase has taken place. Another factor of special note is that though the high-power stations comprise a very small proportion of the broadcasting stations of the country, they are of basic importance when it comes to serving large rural areas, or to covering complete metropolitan trading districts as in the case of the larger cities. The favorable attitude of the Federal Radio Commission toward high power and the consequent granting of 25- and 50-kilowatt status to 6 and 9 additional stations respectively on October 1, 1931,[14] will greatly increase the service rendered by this type of station when the various power increases finally go into operation early in 1933, and should be of considerable assistance to the listeners in the areas affected. Finally, it should be noted that the decreased proportion of 1-kilowatt stations in 1932 does not represent a falling away of stations of this class, but rather indicates the consolidation of part-time stations.[15]

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[13] *Present and Impending Applications to Education of Radio and Allied Arts* (National Advisory Council on Radio in Education, 1932), pp. 80–90. The estimates in question are by a committee composed of the leading radio engineers in this country. The reader is cautioned as to their tentativeness, however, since items such as real estate and wages will vary so greatly between towns as to be extremely difficult to typify in a common figure. The above estimates are undoubtedly extremely low if one were to apply them to New York stations.

[14] *Broadcasting Magazine*, October 15, 1931, p. 8.

The increase in station power described above should be interpreted with care, since it merely constitutes a rough general measure of improved station facilities, though it probably is the best common denominator available. Station power is but one of a number of factors upon which station service, in turn, is conditioned; others of importance including the location of the transmitter, the type and efficiency of antenna employed, topographical and similar conditions with regard to the location of the station, freedom from interference from disturbances created by other stations and non-radio electrical disturbances, the fundamental carrying characteristic of the wave-length used, and the hours of station operation. Since many of these con-

TABLE XII

RELATIVE PROPORTION OF STATIONS OF DIFFERENT POWER, JUNE 30, 1923—JUNE 30, 1932*

YEAR	PERCENTAGE OF STATIONS OF DIFFERENT POWER IN WATTS†							
	Under 100	100–400	500–900	1,000–4,000	5,000–10,000	11,000–25,000	30,000–50,000	Total
1923	48.9	33.8	16.7	0.6	....	....	....	100
1924	47.6	30.9	19.5	2.0	....	....	....	100
1925	38.3	30.9	24.9	4.8	1.1	....	....	100
1926	29.3	27.4	27.8	11.7	3.8	....	....	100
1927	27.9	32.8	26.0	9.2	4.1	....	....	100
1928	23.5	34.3	24.7	11.0	5.6	0.3	0.6	100
1929	13.1	36.4	22.5	16.7	9.0	1.4	0.9	100
1930	9.5	40.4	23.1	15.2	9.1	1.5	1.2	100
1931	6.5	41.9	19.6	21.3	7.7	0.9	2.1	100
1932	5.2	45.2	21.5	17.7	7.3	1.0	2.1	100

* The percentages in question are based upon counts made of stations of different nighttime power as found in *Commercial and Government Radio Stations of the United States*, 1923–31, and *Radio Broadcast Stations in the United States*, 1932, which continues the Department of Commerce work under the auspices of the Federal Radio Commission.

† Headings for station power are misleading, since power tends to group itself very decidedly at certain points: 100, 250, 500, 1,000, 2,500, 5,000, 10,000, 25,000, and 50,000 watts, with a few stations having intermediate power.

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[15] Mr. Loucks to the writer.

siderations revolve around the matter of technical improvements in broadcasting within the past several years, it is this question which next will be discussed briefly.

These technical improvements have been of equal if not greater importance than the general increase in power, and have affected favorably both the clarity, quality, and range of station reception. One of the most interesting improvements in broadcast transmission has been that of the general increase in efficiency of modulation. In order to understand the effect of this factor upon station reception it is necessary to remember that a radio broadcast wave really possesses two aspects: the carrier wave, which is merely the basic emanation of electrical energy at the assigned frequency or wave-length, and the modulation, which constitutes the impression of the sound impulses, translated into electrical energy, thereby changing the characteristics of the carrier wave itself. It is the modulation which constitutes the usable signal and which the receiving set translates into the program heard by the listener.[16] Moreover, it is the modulated portion of the carrier wave which is responsible for most station interference. By a high degree of modulation it is possible to extend the service area of the station wherein its programs can be heard into territory wherein it previously merely constituted a nuisance to other stations. Thus, it is estimated that an increase from 40 per cent to 80 per cent modulation gives the same result in increase of signal delivered, as if the power were increased four times. The effect of the added modulation upon a 500-watt station is the same as if the power of the station had been increased to 2,000 watts; with the important difference that, in the instance of the greater modulation, the nuisance area of the station has not been increased as would have been the case had the carrier output been quadrupled.[17] It should be noted that, since the issuance of General Order 111 by the Federal Radio Commission on April 30, 1931, broadcasting stations have been required to maintain a modulation of over 75 per cent.[18]

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[16] Dr. C. B. Joliffe, chief engineer of the Federal Radio Commission, at the Eighth Annual Convention of the National Association of Broadcasters, Cleveland, 1930 (*Proceedings*, p. 35).

[17] *Fifth Annual Report of the Federal Radio Commission,* Report of the Chief Engineer, p. 23.

[18] *Ibid.*, p. 97.

Improved frequency monitoring is another technical improvement which has been of great service in reducing interference between stations. In General Orders 116 and 117 issued by the Commission in June, 1931,[19] it was required of stations to remain within ±50 cycles per second of their assigned wavelength and to instal monitoring equipment capable of producing that result. This was enforced on June 22, 1932, and by December of that year was practically in complete operation, with noticeable beneficial results. The increased service range possible to broadcasting stations, with all broadcasters maintaining a frequency deviation tolerance of no more than ±50 cycles, is illustrated by the fact that it is estimated that the ensuing freedom from interference by other stations will increase, on the average, the effective service range of a 1-kilowatt station approximately 4.6 times.[20]

Not only have marked improvements been made in the quality of station output which in turn have resulted in decided increases in the average station service range,[21] but improvements also have been effected in the audio frequency range, with respect to both broadcasting transmitters and telephone lines used in connecting network stations. The result has been that a much more faithful representation of tone has been made possible, with a consequent greater naturalness in the reproduction of the program. The trend in this field is evidenced by the fact that today the most up-to-date transmitter can successfully broadcast tones ranging from 30 to 10,000 cycles, while the average modern station can reproduce from 30 to 7,500 cycles. When compared to the tonal range of a piano, which is from 16 to 4,608 cycles, the station of today is seen to be capable of reproducing a tonal range considerably exceeding that instrument and indeed including almost all of the tones of the symphony orchestra. In addition, modern telephone lines, which are being installed widely at the present time, are capable of carrying from 50 to 8,000 cycles as compared to the standard line used in transmitting broadcasting programs, which possesses a range of from 50 to 5,000 cycles. This potentiality of sound transmission is compared to an average audio frequency reception of from 50 to 5,500 cycles for a good modern receiving set with a dynamic speaker, and to a frequency range of from 256 to 2,200 cycles on the part of a pre-screen grid receiver.[22]

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[19] *Ibid.*, p. 104.

[20] *Fifth Annual Report of the Federal Radio Commission* (1931), p. 24. The effect has been extremely satisfactory according to a statement by the Commission printed in the *National Association of Broadcasters News Bulletin* on November 26, 1932.

[21] Daytime service range for a 100-watt station in a city residential section is estimated at 10 miles, and rural at 30 miles; for a 1,000-watt station 26 and 63 miles, respectively; a 5,000-watt station 44 and 93 miles; and a 50,000-watt station 78 and 160 miles (*ibid.*, pp. 30–31).

Marked improvements likewise have occurred in the matter of microphones, upon whose pick-up sensitivity depends the amount of the program conveyed to the station to be broadcast. Following the introduction of the carbon microphone in 1927 the next important improvement was the development of the condenser microphone in 1930, while in 1931 the dynamic or moving-coil microphone was first employed, the occasion being a broadcast of the Philadelphia Orchestra in the fall of that year. The advantages of the dynamic microphone lie in the fact that it possesses a tonal range of from 20 to 10,000 cycles, is not affected by humidity, temperature, or barometric pressure as have been some of its predecessors, and that it is small and sturdy as compared with the bulky and extremely delicate condenser microphone.[23] During 1932 the parabolic microphone, used for large gatherings, and the ribbon microphone have been developed. Both of these microphones are too new and their use still too limited to enable conclusive evaluation of their respective merits. Among the points of superiority claimed for the ribbon microphone are that it is directional and therefore has a greater freedom from interfering noise or reverberation, that it possesses a bilateral pick-up which adds to its versatility, and finally its extreme sensitiveness.[24]

Other technical improvements which should be noted are: (1) the development of half-wave, or single mast, antennae which serve to reduce the sky wave, resulting in less interference and consequent improve service range;[25] (2) the development of directional antennae making possible the reduction of interference in specific areas;[26] (3) improved knowledge of transmitter location[27] in relation to the service area desired, which is one of the most important developments of all; (4) improved studio design, especially with regard to acoustic properties; and, finally, the development and marked improvement in the quality of rebroadcasts from European and other foreign countries to a point where regular intercontinental service of this type has become commonplace.[28] The net result of these technical improvements has been a vastly superior broadcasting service on the part of the stations of the country, as compared with several years ago, and a consequent widening of the circle of listeners who can be reached effectively by individual stations or groups of stations. The principal difficulty today lies not in broadcasting apparatus but in the receiving sets, which have tended to lag materially behind the sending apparatus especially as regards the quality of reproduction. The shift to the small midget set in 1931 with the ensuing price war reduced the average price of receiving sets from $133 in 1929 to $62 in 1931.[29] This in turn has brought with it an overemphasis of price and a consequent reluctance to experiment with or introduce superior models which could be produced profitably only at prices above the current market level.[30]

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[22] *Radio Retailing*, August, 1931, p. 13.

[23] *Broadcasting*, October 15, 1931, p. 16.

[24] "The Ribbon Microphone—Its Application," by J. Weinberger, *Electronics*, November, 1932, p. 337.

[25] Installed by WABC, New York, WNAC, Boston, and WCAU, Philadelphia. Also see *Fifth Annual Report of the Federal Radio Commission*, p. 26.

The final question involved in a consideration of the individual station structure of the country is the part which has been played by the Federal Radio Commission in the development of broadcasting structure of the United States. The Radio Commission was established under the Radio Act of 1927,[31] and its five commissioners were empowerd to regulate broadcasting in the "public convenience, interest and necessity"[32] which, under the law, included the following specific duties: (1) to classify stations; (2) prescribe the nature of the service for each class of station and for any individual station; (3) assign wave-lengths; (4) determine location of stations; (5) regulate kind of apparatus used; (6) regulate the elimination of interference; (7) establish areas of service for individual stations; (8) make special regulations applicable to stations in network broadcasting; and (9) issue regulations regarding station records.

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[26] *Sixth Annual Report of the Federal Radio Commission*, p. 29.

[27] *Ibid.*, pp. 30–31.

[28] *Ibid.*, p. 29.

[29] *Electronics*, March, 1932, p. 101.

[30] See the issues of *Radio Retailing* for 1931 and 1932, especially, for data on this matter.

[31] 44 Stat. L. 1162.

[32] Section 4 of Act, opening paragraph. Duties comprise body thereof.

In actual practice the regulatory efforts of the Commission have tended to fall into several categories: (1) improvements in the standards of transmission, already covered to a considerable degree in the discussion of the technical improvements which have taken place in broadcasting; (2) general regulatory activities with regard to the quality of station service under the "public convenience, interest and necessity"; and (3) allocation of station facilities under the Davis Amendment referred to previously.

With regard to the first type of activity, the Commission not only has rendered an important service through the issuance of general orders, such as those mentioned under technical improvements, but also has tended to accomplish the same purpose through the supervisory influence it exerts over equipment by means of the specifications of engineering requirements as regards the issuance of construction permits, and through the general research carried on by its technical staff.

The Commission's part in maintaining generally high standards of service for the "public convenience, interest and necessity" is well illustrated by a summarization of its own statement, issued August 23, 1928, of what it considered to lie in that province.[33] Among the items included were: (1) that stations should be equipped and financed so as to give as high an order of service over as large a territory as possible; (2) that where a number of stations render the same type of service in a given area, consideration should be given the station whose service does not constitute a duplication; (3) freedom from heterodyning should be effected to the maximum degree; (4) advertising should be secondary to the entertainment service of programs; (5) transmitter location should be regulated so that blanketing will be reduced to a minimum; (6) the financial responsibility of station owners should be complete and specific; (7) private controversy is forbidden on the air; (8) stations must operate on a regular schedule so announced; (9) adequate frequency control must be maintained; and (10) the right to continue to operate a broadcasting station is conditioned upon the service rendered.

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[33] *First Annual Report of the Federal Radio Commission*, pp. 167–70. This still seems to be the attitude of the Commission.

It will be noted that the majority of the Commission's items deal with engineering, and evidence points to the fact that this field has been the most important phase of regulation. However, when necessary, the Commission also has regulated with respect to other matters. Though by no means infallible, it has steered a fairly steady course through the troublesome formative years of broadcasting.

The most important work of the Commission has been the allocation of facilities to various parts of the country, under the Davis Amendment.[34] The groundwork for this allocation was laid in General Order No. 40 assigning the various stations to the different wave-lengths reserved for specific types of service. As was noted at that point a total of ninety channels were provided for: six channels being reserved for local broadcasting, forty for low-powered regional stations, four for high-powered regional stations, and forty for cleared channel stations.[35] The effectiveness of this order was further reinforced by General Orders 41 and 48 dividing stations on the basis of day- and nighttime operation, resulting ultimately in a reduction of the number of nighttime stations from 82.9 per cent of the total in 1927 to 65.7 per cent or 397 stations in 1932.[36] This was of great assistance in improving station service. Conditions, however, are still far from ideal, as is shown by the fact that the nighttime range of the average station is less than its day range because of interference from other stations in the overcrowded ether, whereas the physical conditions with respect to broadcasting reception are much better at night.

The Federal Radio Commission has been severely criticized numerous times with regard to its allocation of station facilities. What has actually taken place in this field since the formation of the Commission is indicated in Table XIII which reveals the relative percentage of broadcasting facilities, calculated on the Commission's unit basis, existing in each zone as compared to the total population and the percentage of radio-owning population.

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[34] See chap. iii, p. 41.

[35] *First Annual Report of the Federal Radio Commission*, pp. 49–50. The plan was put into operation November 11, 1928.

[36] *Ibid.*, pp. 50–54. For statistics see *Sixth Annual Report of the Federal Radio Commission*, p. 25.

From the table it becomes evident that the Commission has followed the Davis Amendment, and that, if criticism there be, it should be leveled primarily at the amendment itself. Analysis reveals that there is little indeed which can be said for the amendment, and it is not without reason that the Standing Committee on Communications of the American Bar Association recently issued a statement recommending the repeal of the amendment and declaring that it had "proved impossible of enforcement."[37] One is almost tempted to state that the 1927 situation regarding facilities was a more logical one than that existing at the present time under the Davis Amendment, as far as the major distribution of facilities is concerned. It is quite true that both the area to be served and the population residing within it must be considered in any scheme of allocation, so that the Mountain District in particular requires more than its proportionate share of facilities if distributed on the basis of radio families. However, it is difficult if not impossible to justify the high proportion of total facilities existing in the Third Zone on

TABLE XIII

COMPARISON OF THE PERCENTAGE OF RADIO FACILITIES ALLOCATED TO VARIOUS ZONES AS COMPARED TO THOSE EXISTING THEREIN PRIOR TO REALLOCATION UNDER THE DAVIS AMENDMENT*

ZONE	PERCENTAGE OF TOTAL FACILITIES AS OF JUNE 30				
	1927	1931	1932	Percentage of Total Radio Families	Percentage of Total Families
I.	20.2	17.5	17.2	31.4	23.0
II.	15.5	16.7	16.9	23.0	22.0
III.	14.0	21.3	21.3	7.2	23.0
IV.	32.7	23.0	23.1	26.7	22.0
V.	17.6	21.5	21.2	11.7	10.0

* The 1927 figures were calculated on the basis of the list of stations appearing in *Commercial and Government Radio Stations of the United States* for that year. The 1931 and 1932 percentages were based on tables regarding quota units appearing in the *Annual Reports of the Commission* for those years.

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[37] *Broadcasting,* November 15, 1932, p. 13.

any basis, or indeed the decided underquota condition of the Second Zone.

The inadequacies of the Davis Amendment become even more apparent when one examines state quotas, which, according to its provisions, should be kept fairly even. Here we find certain states decidedly over quota, such as Illinois by 53 per cent, Iowa 57 per cent, Nebraska 80 per cent, Texas 40 per cent, Florida 107 per cent, and Tennessee 76 per cent; while other states are equally under quota, as in the case of Pennsylvania by 27 per cent, Michigan 22 per cent, Indiana 22 per cent, Connecticut 21 per cent, and Massachusetts 12 per cent, to cite a few examples. Likewise it is found that, even on the basis of the Davis Amendment itself, the First Zone is 6 per cent under quota and the Second Zone 9 per cent, while the Third Zone is over quota by 11 per cent, the Fourth 26 per cent, and the Fifth 18 per cent.[38] From these figures, it is almost necessary to conclude that as far as state allocations are concerned the Davis Amendment has failed completely, and that it has achieved only a slightly greater degree of success in the various zones. This conclusion is further reinforced by the observation that many of the principal cities, wherein are located the most powerful stations, are located on state boundaries, thus further disrupting both the zone and state allocations. It seems therefore that the Davis Amendment constitutes a definite attempt to legislate in the face of economic law, which dictates that supply can only exist profitably where demand is found in sufficient quantity and intensity. Moreover, it is based on the false premise that receiving set ownership tends to follow total population. In so far as the whole question of a reallocation of facilities may be raised in the near future by the rumored North American conference, it seems desirable that thought be given to the construction of some possible method of station allocation which will be more in keeping with the actual needs of the listening public of the country.

A final matter which requires mention regarding the individual station structure, which is at the service of the broadcast advertiser, is the tendency toward a specialization of stations as to types of service. This tendency to specialize upon either a specific type of clientèle or business is distinctly noticeable to anyone conversant with the broadcasting industry. The specialization of stations as to the extent of area covered is an inherent feature of the very allocation of American broadcasting facilities themselves. This specialization is observed in actual practice where stations such as WLW, Cincinnati, and WOR, Newark, tend to assume regional scope, similar to the large newspapers in the publication field. Likewise, class and racial stations are springing up throughout the country, of which Henry Field's well-known farmer station KFNF, Shenandoah, Iowa, and WLS, the Prairie Farmer station of Chicago, are class examples, while WRAX, Philadelphia, constitutes an excellent and interesting example of a station appealing to various foreign groups within the community. There is a similar tendency on the part of small local stations in large cities to specialize with regard to certain economic and cultural levels in the community where competition is less keen. There is no clear line of demarcation regarding this specialization of stations, but it is a tendency which seems to be definitely on the increase, and which should eventually give broadcasting structure greater flexibility and versatility as to reaching special interest groups, over and above the general circulation which it affords.

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[38] From official tabulations of the Federal Radio Commission published in *Broadcasting*, December 1, 1932, p. 26.

CHAPTER V

ECONOMIC BASES: BROADCASTING STRUCTURE —NATIONAL AND REGIONAL NETWORKS

The rise of the national network was an economic necessity to the development of the broadcasting industry in the United States. This was so primarily for two reasons: first, that only national advertisers possessed the funds necessary to finance broadcast advertising, and without broadcast advertising, in turn, the American system could not have developed; and second, the fact that only through a network program service could entertainment of a suitable standard be furnished by the individual station in the earlier years, and even to a surprisingly marked degree today. The rise of national networks not only provided program service to the struggling individual stations, but, in addition, gave them a source of ready revenue. It was a small revenue to be sure but nevertheless it was at least something, at a time when it was most sorely needed—a situation which still exists in many cases.

Broadcasting networks, consisting of a group of stations connected by telephone circuits and broadcasting the same program simultaneously from a central key station, arose in 1924 when stations WJAR, Providence, and WEAF, New York, were first linked together; station WSAI, Cincinnati, being joined to the other two at a slightly later date. Experimentation along these lines had been going on since early in 1923 but it was not until the following year that these efforts took permanent form.

By June 30, 1925, the original network had grown to 12 stations, located in New York, Hartford, Providence, Worcester, Philadelphia, Pittsburgh, Cleveland, Detroit, Cincinnati, Buffalo, Boston, and Davenport, Iowa. On November 1, 1926, the National Broadcasting Company was formed and there were added to the original WEAF Network, as it was called, 5 more stations, located in Portland, Maine, Chicago, St. Louis, Kansas City, Missouri, and Minneapolis. The so-called Red and Blue networks of the National Broadcasting Company were formed late in 1926 as were a number of the subsidiary groups covering the more remote parts of the country. In November, 1928, the Columbia Broadcasting System came into existence with 17 stations, and the foundation for the present national network structure was completed. By June 30, 1932, a total of 171 stations were associated with national networks, while at least another 16 were connected with permanent regional networks,[1] to say nothing of the probably larger number of stations functioning together as regional networks on a temporary basis and only when the occasion of a commercial program demanded. Thus, of the total number of stations in the country, 28.5 per cent are connected with national and regional networks.

At the present time there are two great network companies in the field—the National Broadcasting Company and the Columbia Broadcasting System, Inc. The National Broadcasting Company includes two basic networks, the Red and the Blue, rendering duplicate service to New England, the Middle Atlantic states, and the North Central district, exclusive of Wisconsin, Minnesota, and the Dakotas which constitute a group of four stations comprising one of the regional sub-networks of the system. The Red Network, of which WEAF is the key station, includes 26 stations, of which 4 Chicago stations serve alternately on both basic networks. The Blue Network, with WJZ, New York, as key station, serves the same area, and, including the 4 stations in Chicago, possesses 17 outlets in all. These are, on the average, of somewhat higher power than the Red Network stations though the latter has a numerical superiority. In addition to the two basic networks, which cover the major portion of the Northern Area, there are eight sub-networks, which can be bought in conjunction with either basic network: (1) the Northwestern group, mentioned previously; (2) the South Central group, embracing 6 stations in the East South Central states; (3) the Southwestern group, including 7 stations in the West South Central states; (4) the Southeastern group, containing 7 stations along the South Atlantic seaboard; (5) the Mountain group, comprising 4 stations in that area; (6) and (7) two Pacific Coast networks of 5 stations each, known as the Orange and the Gold networks, respectively; and (8) two Canadian subsidiaries, 1 in Toronto and 1 in Montreal. On June 30, 1932, this structure comprised 84 stations in all.

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[1] National networks figures are from fundamental data supplied the writer by the network companies themselves. The total number of network stations is from *Commercial Radio Advertising*, Federal Radio Commission, p. 14, and is as of December, 1931, though equally applicable to the later date.

The Columbia Broadcasting System structure is somewhat less complex than that of its competitor. The fundamental unit is a basic network of 26 stations covering the same area as that reached by the two National Broadcasting chains. The second unit of importance is a group of 48 supplementary stations scattered throughout the entire country—in addition to being fairly strong in the basic network area—which can be bought in any combination along with the basic network. Of the entire number, 13 stations are located in basic network territory. The only areas not covered by the supplementary stations are the Pacific Coast and the extreme Southeastern region, in both of which cases a separate sub-network exists to serve the territory in question. In the case of the Pacific Coast, the Don Lee Network, a semi-independent regional network comprising 7 stations, constitutes the Columbia System outlet. The extreme Southeastern territory is covered by another separate group comprising 3 Florida stations and 1 in Savannah, Georgia. Finally, 2 Canadian stations, 1 in Montreal and 1 in Toronto, complete the structure. Since June 30, 1932, a third Canadian station CKOK, Windsor, Canada, directly opposite Detroit, has supplanted the local Columbia outlet in that city. On June 30, 1932, the Columbia Broadcasting System included 87 stations other than its short-wave units. It should also be noted with respect to this network that the Yankee Network stations of New England are connected with it, and comprise its outlet in that territory. There also are a number of stations connected with the Columbia System on a temporary basis, bringing the total potential number of stations to 95 in all. Earlier in its history the Columbia System possessed an organization of regional sub-networks similar to that of the National Broadcasting Company, but abandoned these several years ago.

The development of the network structures of both companies is found in Table XIV.

A somewhat better appreciation of the relative growth of national networks and of their relation to the total number of stations in the country is found in Table XV.

TABLE XIV

STRUCTURE OF THE TWO NATIONAL NETWORK COMPANIES SINCE THEIR FORMATION*

Columbia Broadcasting System, Stations and Power of Various Basic and Subsidiary Networks, 1928–32

YEAR	BASIC NETWORK		SUPPLEMENTARY STATIONS		SOUTH ATLANTIC GROUP		DON LEE PACIFIC COAST UNIT		CANADIAN SUPPLEMENTARIES		TOTAL STATIONS	TOTAL POWER
	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power		
1928	17	24,400	......	......	......	......	......	......	......	......	17	24,400
1929	24	66,500	22	49,750	3	1,750	......	......	......	......	49	118,000
1930	24	97,500	25	42,500	3	1,750	5	5,000	2	9,000	59	155,750
1931	24	142,250	41	61,850	4	3,000	6	6,000	2	9,000	77	223,100
1932	26	202,750	48	71,850	4	2,750	7	6,500	2	9,000	87	292,850

* Taken from original network records, as of June 30th, annually.

TABLE XIV—*Continued*

National Broadcasting Company, Stations and Power of Various Basic and Subsidiary Networks, 1926–32

Year	Red Network		Blue Network		Southeastern Group		South Central Group		Southwestern Gfoup		Northwestern Group	
	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power
1926	18	29,250	....	....	....	....	....	....	....	....	....	....
1927	21	125,250	7	90,500	1	1,000	4	3,000	1	1,000	....	....
1928	23	160,000	10	117,500	2	6,000	4	7,000	4	12,000	2	2,000
1929	25	164,250	10	117,500	5	9,000	6	17,000	6	32,000	3	12,000
1930	26	267,000	12	177,500	6	14,000	7	27,000	6	32,000	3	12,000
1931	26	312,500	13	178,500	5	9,000	7	27,000	6	77,000	5	14,000
1932	26	292,000	13	174,500	7	10,500	6	17,000	7	78,000	6	14,500

TABLE XIV—*Continued*

YEAR	MOUNTAIN GROUP		CANADIAN SUBSIDIARIES		PACIFIC ORANGE NETWORK		PACIFIC GOLD NETWORK		PACIFIC SUPPLEMENTARY NETWORK		HAWAIIAN SUBSIDIARY		TOTAL STATIONS	TOTAL POWER
	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power	Total Stations	Total Power		
1926	......	......	......	......	......	......	......	......	......	......	......	......	18	29,250
1927	......	......	......	......	6	16,500	1	1,000	......	......	......	......	41	238,250
1928	1	5,000	......	......	5	15,500	1	1,000	......	......	......	......	52	326,000
1929	2	17,500	......	......	5	15,500	1	5,000	......	......	......	......	63	389,750
1930	2	17,500	1	5,000	5	15,500	2	6,000	2	1,000	......	......	72	574,500
1931	2	17,500	2	6,650	5	15,500	2	6,000	2	1,000	......	......	75	664,650
1932	4	19,000	2	6,650	5	60,500	5	21,000	2	1,000	1	1,000	84	695,650

From this table it is evident that the growth of network affiliation on the part of stations has been a comparatively steady one, with the Columbia System growing more rapidly in order to make up for the start possessed by the National Broadcasting Company and its predecessors. A rather more than ordinary increase in network affiliation is shown in 1932, probably due to the battle for outlets which was waged between the two networks that year and which resulted, among other things, in the switch of WGN and WMAQ, Chicago, from the National Broadcasting Company to the Columbia System, and vice versa; and of a similar situation with respect to stations KSL and KDYL, Salt Lake City, the former shifting to Columbia and the latter swinging the other direction.

TABLE XV

RELATIVE PROPORTION OF NATIONAL NETWORK TO TOTAL STATIONS IN THE UNITED STATES, JUNE 30, 1924—JUNE 30, 1932*

Year	Total Stations in U.S.	Total Network Stations	Percentage of Network to Total Stations	Total N.B.C. Stations	Percentage of N.B.C. to Total Stations	Total C.B.S. Stations	Percentage of C.B.S. to Total Stations
1924	535	3	0.6	3	0.6	....	....
1925	571	12	2.1	12	2.1	....	....
1926	528	18	3.4	18	3.4	....	....
1927	681	41	8.0	41	8.0	....	....
1928	677	69	10.2	52	7.7	17	2.5
1929	606	112	18.4	63	10.4	49	8.0
1930	618	128	20.7	71	11.4	57	9.3
1931	612	148	24.2	73	12.0	75	12.2
1932	604	167	27.8	82	13.8	85	14.0

* *Commercial and Government Radio Stations of the U.S.* (1922–26) and *Sixth Annual Report of the Federal Radio Commission* (1927–32) for individual station figures; network data from basic network records. Canadian stations are not included.

The proportion of total facilities available for broadcasting which are possessed by network stations is of considerably greater importance than is the question of the mere number of stations affiliated with the two great national companies. The relative proportion of network to total broadcasting facilities in each of the five zones is found in Table XVI. Though the data given here are for November, 1931, it should be noted that no fundamental changes occurred in this respect until after June

30, 1932, so that the figures given here are comparable with those presented in other charts in the chapter.

From the table it becomes evident that though the networks contain but a small proportion of the total stations, they control, or at least have affiliated with them, the cream of the nation's broadcasting facilities. As will be seen later, any control which exists is very tenuous indeed. The tendency to have affiliated with them the most powerful stations of the nation will be even more pronounced when the high-power assignments of October, 1931, finally are all put into effect. When this is completed 30 of the 32 stations of 25,000 or more watts in power in the country will be affiliated with the two national network companies. The 2 independent stations will be WOR, Newark, and KNX, Hollywood. Of the total high-powered stations, the National Broadcasting Company will have affiliated with it a total of 21 stations, and the Columbia Broadcasting System 9 stations. The National Broadcasting Company will gain a total

TABLE XVI

PROPORTION OF TOTAL FACILITIES AFFILIATED WITH NETWORKS AS OF NOVEMBER, 1931*

Zone	Non-Network Stations		All Network Stations							
	Total Non-network Facilities in Units	Percentage of Total Facilities	Total Network Facilities in Units	Percentage of Total Facilities	Total Station Facilities	Percentage	Total N.B.C. Facilities in Units	Percentage of Total Facilities	Total C.B.S. Facilities in Units	Percentage of Total Facilities
I.	22.76	30.1	53.00	69.9	76.76	100.0	34.10	45.0	18.90	24.9
II.	15.50	22.3	56.18	77.7	72.31	100.0	35.32	48.8	20.86	28.9
III.	27.90	30.1	64.64	69.9	92.54	100.0	40.32	43.5	24.32	26.4
IV.	30.23	30.3	69.49	69.7	99.72	100.0	32.14	32.2	37.35	37.5
V.	38.39	41.3	54.64	58.7	93.03	100.0	43.02	46.2	11.62	12.5
Entire country.	135.41	31.3	297.95	68.7	433.36	100.0	184.90	42.6	113.05	26.1

* Based on *Commercial Radio Advertising*, pp. 66–69. The units in the table are based upon assigned values given to stations of varying power and hours of operation by the Federal Radio Commission as found in Rule 109 of its Rules and Regulations.

of 277,500 watts in the power increases, while the Columbia System will gain 214,000 watts.[2]

Not only is Table XVI interesting as an indication of the fact that the national networks have affiliated between them practically all of the important stations of the country, but a comparison of the relative proportion of the facilities controlled by either network in the various zones will enable the formation of conclusions regarding the relative strength of the two companies in different parts of the country. At the outset it must be remembered, however, that the National Broadcasting Company possesses two basic networks in the Northern Area, which in turn embraces practically all of the First, Second, and Fourth zones, while the Columbia System has only one basic network. When a comparison is made of the First and Second zones, especially, it is only sound procedure to take this fact into consideration. Doing so, indicates that in these areas there is a slight predominance of facilities in favor of the National Broadcasting Company networks. In the Fourth Zone where the National Broadcasting Company Chicago stations, comprising a large portion of their total facilities in that zone, are interchangeable between the two basic networks, the dual coverage requires less consideration. In this instance, however, the Columbia System shows a rather marked superiority, while, in the Third Zone, the National Broadcasting Company possesses the greater facilities. In the Fifth Zone the possession of two networks on the part of the National Broadcasting Company makes comparison difficult, but a superiority in facilities is again indicated in its direction.

Though there seems to be some quantitative superiority in the matter of facilities on the part of the National Broadcasting Company, it must be remembered that this is but a very rough measure of the relative effectiveness of the two networks to serve the national advertiser. All of the numerous factors regarding station circulation hold for networks as well, and because of this no conclusive answer is possible regarding the relative effectiveness of the various national networks. In all probability there is but the slightest shade of difference between the three basic networks[3] and all of them are about equally effective from the viewpoint of the audience served. Some conception of the thoroughness with which the national networks probably cover the country may be gained from the estimates of the Columbia System as of January 1, 1932, to the extent that 82.4 per cent of the listeners tended to employ Columbia stations with at least a fair degree of regularity.[4] This situation is fairly typical with regard to other national networks.

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[2] Based on *Broadcasting*, October 15, 1931, p. 8, and December 1, 1932, p. 12.

The relations between the central network organizations and their affiliated stations are of considerable interest to the advertiser, and basically affect the efficient functioning of the network structures. In the case of the Columbia Broadcasting System, the following description indicates the salient points regarding the station-network relations of this organization.

Stations affiliated with the Columbia Network receive one of two classes of service, "permanent" or "temporary." Virtually all of the stations fall in the first class, which means that program service is available from the opening of the network each day until sign-off in the late evening, except commercial programs not requiring a particular station's facilities. Stations in the temporary class are those without regular affiliation tied in at the specific order of an advertiser desiring their coverage. These stations receive only one hour's service on any night they are used for a commercial program and are entitled to any sustaining service falling within that hour.

All permanent stations are on a contract basis, in which they are required to pay a predetermined monthly charge for wire facilities entitling them to all sustaining service which might be available to them. Such charges vary in accordance with the expense to the System for leased wire rental. If a station denotes inability to meet the terms of the System during negotiations, a more reasonable charge may be arranged, in exchange for which the station agrees to accept a stipulated number of commercial program hours per week without charge to the System.

Practically all sustaining programs (i.e. programs whose cost is met by the Network and not by a commercial sponsor) sent to affiliated stations may be sold by the individual managements for sponsorship by local advertisers. The Columbia System makes no additional charge to the station for such use of sustaining features. However, there is a hazard to the station in this, for there is no obligation to the System to preserve a set time for sustaining programs; so the practice of local sponsorship has not become widespread except on certain programs which have been broadcast regularly at a specified time for a long period. A number of features, such as the New York Philharmonic Symphony concerts, World Series baseball games, and intercollegiate sporting contests, are restricted and may not be sponsored under any conditions.

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[3] An opinion formed by one of the experts originally consulted regarding the Price, Waterhouse surveys of the Columbia System.

[4] *Radio Listening Areas,* by Columbia Broadcasting System.

Contracts with associated stations vary in individual cases as regards payment for the acceptance and transmission of sponsored programs. In exchange for a special reduction in charge for facilities, as explained previously, certain stations broadcast commercial programs without charge for a specified number of hours per week, and, on all subsequent commercial programs accepted by them, are paid a contract rate per hour. This rate is not uniform with all stations but varies with factors such as the size and importance of the market served and the demand for coverage of that market by national sponsors of programs. There is, therefore, a wide spread in rates paid affiliated stations for the same time, the difference being accounted for primarily by the circulation or potential audience. The minimum rate of payment to affiliated stations for acceptance of a commercial broadcast is $50 per evening hour and $25 per daytime hour, with shorter periods commanding proportionate sums.

Contracts with stations on the Columbia Basic Network provide for the delivery of all time between eight and eleven at night, current New York time, to the Columbia System upon two weeks' notice. In some instances, all time is under option, while, in others, specified hours other than the period generally arranged for are included in the time commanded by the network. The majority of contracts with supplementary stations provide for option on virtually every hour.

The National Broadcasting Company's relations with its affiliated stations are somewhat more simple than those of the Columbia System. At present, two types of arrangements exist. The older and probably more prevalent of the two is one wherein the station is paid $50 for every hour of commercial broadcasting done between six and twelve o'clock at night, while the station in turn pays the National Broadcasting Company $25 for every hour of sustaining programs accepted from it. The daytime rates for the same periods are $30 and $15, respectively.[5] Recently a new arrangement with affiliated stations has been announced whereby the affiliated station has the option either of purchasing its sustaining programs under the system previously outlined or of paying the flat sum of $1,500 per month, or $18,000 a year, for sustaining programs, thereby receiving the right to broadcast as many of these as it desires.[6] It was stated at the time the announcement was made that the new arrangement would constitute a considerable saving for a number of affiliated stations. It also should be noted that, while the Columbia affiliated stations contribute to the payment of the line charges, this cost is met directly by the National Broadcasting Company. Finally, certain programs, such as addresses by the President of the United States, broadcasts of the Metropolitan Opera Company, and the Damrosch Hour, are furnished stations free of charge, the National Broadcasting Company assuming all expenses.

Any discussion of station-network relations, however, would be incomplete without mention of some of the more important problems which exist in this field today, and which promise to affect seriously future network structure and practice. Practically all of these problems revolve about the thorny question of the payment received by the individual station from the network for broadcasting a commercially sponsored program. The criticism of the present systems in vogue is especially strong on the part of the managers of the more powerful stations, with high operating costs and overhead. A number of such managers have stated that it is impossible to make money on network commercial programs at the standard rate of payment. Two large stations were estimated to lose approximately $150 on each hour of network commercial programs broadcast. This situation is further aggravated by the fact that even where a fairly profitable business is built up on network commercial programs, the cost of sustaining service eats up much of the revenue. Thus one large station reports that out of $50,000 received for broadcasting network programs, 60 per cent was paid back to the network in the form of sustaining program fees.

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[5] *Commercial Radio Advertising*, Federal Radio Commission, p. 30.

[6] *Broadcasting*, July 15, 1932, p. 15.

This situation is more serious with respect to the National Broadcasting Company, because of its relatively inelastic system of payment, than in the case of the Columbia Broadcasting System, where greater leeway is possible. The result is that there are a number of important National Broadcasting network stations which constitute chronic sources of dissatisfaction. It should be remarked, in fairness to all parties concerned, that this dissatisfaction is strictly limited to economic matters, and that in other spheres of activity the most cordial co-operation and spirit of friendliness maintains.

Though the Columbia Broadcasting System is faced with somewhat less difficulty in this field because of the greater elasticity of its system of station payment, it must not be assumed that its method constitutes the ultimate solution to the problem. There are instances where the network command of evening broadcasting hours acts as a curtailing factor with regard to station revenue, making impossible the acceptance of local business at the higher evening rate and forcing the acceptance of network business. Thus in the case of one station, which may be cited as an example of the potentialities of this form of arrangement, but four out of twenty-eight of the choice evening hours were available monthly for local sponsorship. The solution of the problem, indeed, demands a more far-reaching modification of network structure and practice than that thus far effected by either network, and concerning which, at present, only the barest ventures of opinion are possible.

The practical results of this problem, however, are of more immediate interest. One of the most important of these is the question of station delivery. Because it is the large stations, covering wide areas and usually located in important buying centers, which constitute the chief source of dissatisfaction, the situation arises, more frequently than desirable for the network, where a leading station may refuse to accept a sponsored program which conflicts with a local and more profitable broadcast. Since the market covered by this station may be of especial importance to the broadcast advertiser, the entire undertaking may be abandoned or shifted to a competing network, as has been the case in at least several instances. When a number of stations on one basic network refuse to clear time for a program, the situation becomes virtually impossible. This is exemplified by the experience of one space buyer, who attempted to secure a group of 18 stations of which only 8 could be cleared at the hour and on the night desired. Obviously, such a situation seriously impairs the efficiency of the network, unless steps, such as having two outlets in the town in question, are taken to counteract it.

A second problem which has been greatly accentuated by the station payment problem has been that of the shifting of stations from one network to the other. The real root of this problem lay in the jockeying of the two great network companies for competitive position in the more important territories. However, it became a relatively more simple matter to secure a competing station for one's own network, when that station was dissatisfied with the revenue it was receiving for network advertising programs from one's competitor. This, it is said by experts in the field, has been behind the majority of the 11 station shifts which have taken place between networks within recent years, beginning with the shift of WCCO, Minneapolis, to the Columbia Broadcasting System in 1929, and concluding, at least to date, with the exchange of network affiliations of stations KSL and KDYL, Salt Lake City, during the summer of 1932, whereby the Columbia System gained the former, a 50-kilowatt station, for the latter which is only 1 kilowatt in power. In this series of shifts the National Broadcasting Company gained stations WMAQ, Chicago, 5,000 watts; KOIL, Omaha, 1,000 watts; WWNC, Asheville, North Carolina, 1,000 watts; and KDYL, Salt Lake City, 1,000 watts; and lost WGR, Buffalo, 1,000 watts; WGN, Chicago, 25,000 watts; KFAB, Lincoln, Nebraska, 5,000 watts;[7] WBT, Charlotte, North Carolina, 25,000 watts; WHAS, Louisville, Kentucky, 25,000 watts; WCCO, Minneapolis, 50,000 watts; and KSL, Salt Lake City, 50,000 watts. With the exception of the Minneapolis and Charlotte shifts, all of the changes of network affiliation occurred either in 1931 or 1932. It should be noted that most of the stations involved are important regional outlets. In addition to the aforementioned stations, the National Broadcasting

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[7] Station possesses a construction permit for 25,000 watts.

Company in 1932 secured stations KEX, Portland, Oregon; KJR, Seattle, Washington, and KGA, Spokane, Washington, as outlets for its newly formed Pacific Gold Network. These stations had been Columbia outlets prior to 1929 when that network made the Don Lee chain its far-western subsidiary. Other than the shifts in network affiliation mentioned above there have been no changes of importance in network structure since the formation of the Columbia System in 1928.

Thus far the network difficulties arising primarily out of the problem of station compensation have been discussed. Several additional comments, however, are necessary with regard to the station viewpoint in the matter. Much as the larger station may find the relatively low recompense secured for broadcasting national network programs a matter of difficulty, it also is faced with the fact that in most cases it cannot do without the network sustaining services. In few, if any, instances have stations been able to maintain their popularity with the listening audience after they have severed their network connections.[8] The cost of securing comparable talent, and in many cases the virtual impossibility of so doing, combined with the high overhead of program creation, have been more than the station could overcome successfully.

The question of network payment for commercial programs, and the allied problems of station delivery and the shifting of affiliation from one network to the other, is a matter of concern only to the larger broadcasting stations. For the most part the small network affiliate is quite content with his lot. The network constitutes a ready source of program material on which he may build his local popularity. In addition, the revenue secured from network commercial programs is especially acceptable, since it forms the foundation of his revenue in many instances, while, with his small expenses, it probably will be a source of considerable profit. On this basis, the smaller station then builds its local clientèle, who broadcast mostly in the daytime, and capitalize as much as possible upon the popularity which has been built up by the network programs.

It is impossible to say at the present moment what is the answer to this perplexing question of station-network relations. The elements, however, are clear. If the network compensation is not better adjusted, increasing difficulty will be experienced with important outlets, and if this occurs, serious modifications of network structure may arise. With regard to the solution of this problem a number of trends are noticeable, which may shed some light on the probable future of network practice and structure in this regard; while the speculative opinion of experts in the field may also be ventured, not with the purpose of indicating a definite solution as much as of suggesting some of the potentialities contained within the present situation.

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[8] Though station popularity is a difficult matter to measure, it might be ventured that WOR, Newark, has enjoyed probably the greatest success as an independent station competing directly with network key stations for listeners.

That the trend in the direction of a readjustment of network rates is indicated, is shown by the proposed solution of the WLW problem, which was almost accepted by the National Broadcasting Company.[9] Under this arrangement, the advertiser was to receive station WSAI, Cincinnati, Ohio, on the Red Network, and WCKY, Covington, Kentucky, on the Blue Network at the regular card rate; though it would be possible to substitute station WLW in either case by paying an additional sum so as to equal that station's own card rate. This arrangement was revoked at the final moment by the network. Had it been put into effect it would have constituted a significant recognition of the principle of payment of stations according to their economic importance. In addition, if any number of stations had been able to force similar concessions, it would have introduced an element of uncertainty into network costs which would have seriously impaired the selling of network time.

Such an arrangement therefore cannot be said potentially to constitute even a partial solution of the problem at hand. A much more fundamental readjustment of network rates is necessary. Indeed, it is probable that the entire theory of network rates may be open to question. For the most part, the national network is analogous to the national magazine. An advertiser does not buy one part of the circulation separately, but the entire circulation of the magazine. In some towns this circulation may be weak, and in others it may be especially strong. However, the principal interest of the advertiser is its general rather than specific coverage. If this is satisfactory he will buy space in the periodical in question. If not he will use another magazine. However, in the broadcast advertising field too much emphasis has been placed on the component parts of the national circulation, the individual station, and too little on the functioning of the network as a whole. Consequently the advertiser has come to look upon the network much more as an association of individual stations than as one national medium, simultaneously reaching millions of people. In building up this impression the networks have been partly to blame, since they have emphasized the competitive control of key outlets much more than they have the general aspects of their coverage. It would seem that the time has come to place the emphasis upon the latter aspect. Though a network is no stronger than its individual stations, it nevertheless is the complete network which is of primary importance to the advertiser, and in terms of which he logically should think.

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[9] *Variety*, January 1, 1933, p. 37.

Though the changing of the theory of network rates is largely a matter of sales presentation, unless one wishes to go as far as one executive and to charge for networks as a bloc rather than by individual station charges added together, there is one concrete step which can be taken that would relieve the situation to a marked degree. This step is the basic readjustment of network rates to the advertiser on the basis of the economic importance of the stations and the areas they covered, and an ensuing readjustment of network compensation to stations on the same basis. At the present time the advertiser is paying a ridiculously low sum for his key station and metropolitan coverage, and too much, at least correspondingly, for his outlying coverage. This is illustrated by Table XVII which presents a few rates for National Broadcasting and Columbia Network stations, together with the number of radio families within the city confines of the towns wherein each station is located, and the power of the station. The unscientific basis of present rates would be even more strikingly illustrated were it possible to present accurate coverage data for each station, and with respect to which the New York key stations would be shown to reach no less than 5,000,000 radio families in the retail trading area of that metropolis.

Table XVII raises the question of whether or not the advertiser is being charged too much for his outlying coverage and too little for his key station and metropolitan coverage. This seems to be the case. It therefore should be possible to revise the rates so that more equitable charges would be made for stations of varying importance. Were this done, it is the opinion of some experts that the cost of radio broadcasting actually would be lowered in many instances, at least to the buyer of a complete national network, since he would save more from reduced outlying station charges than he would be charged additional for the metropolitan facilities. Whether this would happen is difficult to say. At least a more scientific and, in the long run, more satisfactory rate structure would have been evolved. It is safe to venture the opinion that some readjustment of this sort will occur in network rates and station compensation.

TABLE XVII

COMPARISON OF NETWORK CHARGES, POWER, AND NUMBER OF RADIO FAMILIES IN CITY WHEREIN STATION IS LOCATED FOR REPRESENTATIVE NETWORK STATIONS*

Station	City	Network	Power in Watts	Charge for One Hour Nighttime	Number of Radio Families in City
WEAF	New York, N.Y.	NBC	50,000	$900	1,021,651
WABC	New York, N.Y.	CBS	50,000	800	1,021,651
KSD	St. Louis, Mo.	NBC	500	210	108,267
WHO	Des Moines, Iowa	NBC	5,000	190	19,621
WOW	Omaha, Neb.	NBC	1,000	190	28,835
WDAY	Fargo, N.D.	NBC	1,000	150	3,108
WKRC	Cincinnati, Ohio	CBS	500	200	59,756
WFEA	Manchester, N.H.	CBS	500	125	7,562
WLAC	Nashville, Tenn.	CBS	5,000	190	11,130
WHEC	Rochester, N.Y.	CBS	500	170	45,814
KRLD *or*	Dallas, Tex.	CBS	10,000	100	27,119
WRR	Dallas, Tex.	CBS	500	100	27,119

* The station data are from *Standard Rate and Data*, November, 1932, while the population data are from the *Census of 1930*. Station power has been secured from basic network records. The stations selected are representative of the situation as a whole, since rates do not fluctuate greatly between individual outlying stations.

Another attempted solution which has arisen out of the problem of station compensation and network time control has been the practice on the part of individual broadcasters to control two stations in a given town and to shunt the network programs between the two. This is exemplified by the Buffalo Broadcasting Corporation, owners of stations WGR and WKBW, Buffalo, New York. In this case, the two stations between them carry almost the entire Columbia Broadcasting System schedule, still allowing open time for local advertisers. Though this constitutes a most satisfactory solution to the problem of time control where it can be applied, the number of instances where it would be possible to secure control of two stations is so small as to make it of doubtful value except in a few scattered cases. However, it is relatively more possible in the larger communities, which are the real sore spots, though here its applicability is limited by the number of stations of sufficiently high power to be satisfactory as network outlets.

Still another trend, which is certain to be even more pronounced in the future than it has been in the past, is that toward network ownership and financial control of outlets in key cities. This has arisen for a number of reasons, the principal ones of which have been the problem of station delivery, and the battle to secure competitive advantages in the larger metropolitan markets on the part of the two networks. The number of stations either owned or controlled by the two network companies are found in Table XVIII.

In addition to the stations financially controlled by networks there are at least two stations wherein officials of the Columbia Network are listed as being holders of more than 10 per cent of the station's stock—WCAU, Philadelphia, 50,000 watts; and WDRC, Hartford, Connecticut, 500 watts.[10] How much this affects network control it is impossible to say. The National Broadcasting Company, on the other hand, operates the program service for the Westinghouse Electric and Manufacturing Company stations, WBX-WBZA, Boston-Springfield, 25,000 watts, and KDKA, Pittsburgh, 50,000 watts. It is stated that the network control is limited only to program service in the case of these stations. Finally, station WGY, Schenectady, is owned by the General Electric Company, which, though divesting itself of its Radio Corporation stock in accordance with the consent decree recently issued by the United States District Court, still owns a large block of the stock of the National Broadcasting Company's parent concern.

It will be noted in Table XVIII, that both of the great broadcasting companies possess a substantial financial interest in high-powered stations located in the leading buying areas of the country, and that these stations, in turn, tend to constitute the nucleus of their basic networks to a rather large degree, though not completely so. If the pressure of competitive jockeying for position and the problem of station delivery continues, a further increase in network ownership and control of stations may be expected. There is much to be said for such an arrangement. Logically the networks are the magazines of the air, and as such they require definite unitary aspect which will enable them to cover at least the major listening areas of the country at all times and on all occasions. It is even possible that such a structure would be more in keeping with the public interest, since it would insure the reception of both network sustaining and commercial programs over a wide area, and would do away with the

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[10] *Broadcast Reporter*, October 17 and 24, 1932.

TABLE XVIII

STATIONS OWNED OR FINANCIALLY CONTROLLED BY NATIONAL NETWORKS*

Station	City	Power in Watts	Network by Which Controlled	Nature of Control
WEAF	New York, N.Y.	50,000	NBC	Owned
WJZ	New York, N.Y.	30,000	NBC	Owned
WENR	Chicago, Ill.	50,000	NBC	Owned
WTAM	Cleveland, Ohio	50,000	NBC	Owned
WRC	Washington, D.C.	500	NBC	Owned
WMAQ	Chicago, Ill.	5,000	NBC	Financial interest
KEX	Portland, Ore.	5,000	NBC	Financial interest
KYA	San Francisco, Calif.	1,000	NBC	Financial interest
KJR	Seattle, Wash.	5,000	NBC	Financial interest
KGA	Spokane, Wash.	5,000	NBC	Financial interest
KOA	Denver, Colo.	50,000	NBC	Leased
KGO	San Francisco, Calif.	7,500	NBC	Leased
KPO	San Francisco, Calif.	50,000	NBC	Leased
WABC	New York, N.Y.	50,000	CBS	Owned
WJSV	Alexandria, Va.†	10,000	CBS	Owned
WBBM	Chicago, Ill.	25,000	CBS	Owned
WCCO	Minneapolis, Minn.	50,000	CBS	Owned
WKRC	Cincinnati, Ohio	500	CBS	Owned
KMOX	St. Louis, Mo.	50,000	CBS	Financial interest
WPG	Atlantic City, N.J.	5,000	CBS	Leased

* This table is based on *Commercial Radio Advertising*, Federal Radio Commission, pp. 15, 19, and has been brought up to date from *Radio Broadcasting Stations in the United States 1932*. It is probably correct as of the spring of 1932.

† Adjacent to Washington, D. C.

possibility, and often actuality, of a local station refusing to take an important sustaining program because the hour in question had been sold to a local advertiser.

Whether this development will go so far as to create a situation wherein the networks will own all of their stations, at least on the basic chain, is hard to say. From the viewpoint of the sale of broadcast advertising facilities, the development of a distinct network personality with which to win the loyalty of the listening public, and the ability to distribute the cost of operation of individual stations over the network as a whole, such an arrangement is economically the most desirable. There are, indeed, a number of experts in the field who believe that the integrated network will constitute at least one of the elements in the broadcasting structure of the future. There is reason to doubt whether such a development will extend farther than the basic networks and coast subsidiaries, since the high upkeep of stations in areas where network facilities are in relatively less demand will tend unduly to raise the general network overhead. Coast subsidiaries probably would be retained as part of the integrated network since they could be used as regional chains when not broadcasting national programs. Likewise, it is probable that non-basic network areas could be covered through some form of affiliation with independent stations similar to that at present in force. However, this is purely a matter of speculation at the present time, the most important aspect of which is not so much the actual direction which future network development will take but rather the potentialities for structural change inherent in the situation.

Another interesting possible addition to the network structure of the country, which has been suggested to the writer in various forms by different broadcasters, is the formation of a co-operatively owned network by independent stations. This network would function in the program field similar to the Associated Press with regard to the newspapers of the country, in that it would provide station service in the broadcasting of public events, and quite probably to some extent would act as a clearing house for sustaining programs broadcast by individual station members within certain specified limits. This would coincide with the opinion of some individuals well versed in the field of broadcasting who believe that the network primarily should be a program service rather than a definite ruling entity. With regard to broadcast advertising, the co-operatively owned network would function in the double rôle of a national advertising medium and a clearing house of national and regional spot business.[11] Many practical problems would have to be solved,[12] if indeed they could be, before such a network could be brought into existence. It is interesting, however, to find even the suggestion being made in representative circles. However, in view of the great probability that the broadcasting band will be widened to at least 380 kilocycles during the next decade at the latest—thus making way for more stations—there undoubtedly would be room for both the integrated and the co-operative form of networks in the broadcast structure, each fulfilling a specific function and rendering a unique type of service to the public.

Thus the ultimate future of network structure is extremely uncertain. For the immediate future, however, one may safely predict: (1) readjustments in rate structure along more scientific lines, which should benefit station, network, and advertiser alike; and (2) a trend toward increased network ownership and financial control of stations, especially in the larger and strategically more important centers.

A final aspect of network development, which remains to be discussed before a complete appreciation is possible of the present and potential network structure available to the advertiser, is the regional network. There has been a marked rise within the past two years of formal and informal networks of this type, each designed to serve a particular segment of the country. It is estimated by one authority in the field[13] that there must be more than ten such networks in operation at the present time.

The Yankee Network, serving the New England territory, is one of the best examples of this form of network. It was organized in 1930 by the Shepard Broadcasting Service, owners of station WNAC, Boston, and several other adjacent outlets. By the close of the first year of its existence the network came to include 5 stations located in Boston, Providence, New Bedford, Worcester, and Bridgeport. Since that time Hartford, Manchester, New Hampshire, Springfield, Bangor, and a second station in Providence have been added to the Yankee Network.

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[11] Chap. viii will discuss this aspect.

[12] Some of the difficulties visioned are: (1) the question of the extent of sustaining service rendered; (2) the rendering of sustaining service to competing stations, if any existed in the structure; (3) the rather high line charges which might ensue from a complicated sustaining program service; and (4) the problem of clearing time for national accounts if these were handled.

[13] Howard S. Meighan, Scott Howe Bowen, Inc. It is almost impossible to secure any accurate information on this point from any source, so that the best estimate is somewhat tentative. Because of his wide contact with the regional and spot broadcast advertising field, Mr. Meighan's estimate is probably the best available.

The Yankee Network also is affiliated with the Columbia Broadcasting System, which enables it to furnish its member stations with both Yankee and Columbia sustaining program service. The Columbia System has the usual option on evening broadcasting hours, so that only about 15 per cent of the Yankee Network nighttime programs are their own commercial endeavors, these coming mostly after ten o'clock. However, at least 60 per cent to 70 per cent of the daytime broadcasts are Yankee Network programs. This arrangement has been described by officials of the network as being very satisfactory.

The Don Lee Network is somewhat similarly constructed and operates in the Pacific Coast area, primarily in California. It owns stations in San Francisco, Los Angeles, San Diego, and Santa Barbara, the first two stations acting as the key stations for the network. In addition, it possesses a franchise on the McClatchy stations in Bakersfield, Stockton, Fresno, and San Diego, and has a working arrangement with outlets in Portland, Seattle, Tacoma, and Spokane. Like the Yankee Network, it has enjoyed a high degree of success. A third network similar in many aspects to the two previously mentioned is the Southwest Broadcasting Company, operating stations in eight cities in Texas and Oklahoma. This network has experienced serious difficulties in the way of the high line charges required for linking together such widely separated stations as comprise its structure. A fourth regional network, the New England Network, comprising National Broadcasting Company affiliated stations, has been organized recently, largely under the sponsorship of station WTIC, Hartford, which acts as the key station for the group.

Several years ago a class network was attempted, however, with little success. The attempt in question was the Quality Group, originated by stations WOR, Newark, and WLW, Cincinnati, and including at different times various Chicago stations, WHAM, Rochester, WCAU, Philadelphia, and later WIP-WFAN, Philadelphia. The network was unsuccessful, not because the market for such service did not exist, but rather because the wire charges were too heavy in proportion to total cost of broadcasting, and payment for individual stations at the local card rate, which was the practice, brought the cost of the Quality Group too near that of broadcasting over the basic network of a national company.

A very recent development which promises to be even more pronounced in the future is the rise of the informal network, wherein several stations are associated merely for the duration of a given program. With agency knowledge of the individual station field increasing to a marked degree, more of this type of thing may be expected. Moreover, opportunities for regional functioning by this type of organization often present themselves. Thus WLW, Cincinnati, WCAE, Pittsburgh, WGAR, Cleveland, and WXYZ, Detroit, have been functioning periodically in this fashion for advertisers interested in the North Central district. At least one foreign-language program has been broadcast over an informal network of this type, Father Justin's Rosary having sponsored a program in Polish, over stations in Buffalo, Chicago, Cleveland, Detroit, Pittsburgh, Wilkes Barre, and Scranton.[14] According to agency executives a wide variety of these informal network arrangements exist in the broadcasting industry today.

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[14] *Broadcasting*, March 15, 1932, p. 9.

PART II

THE USE OF BROADCASTING BY ADVERTISERS

CHAPTER VI

THE DEVELOPMENT AND PRESENT EXTENT OF ADVERTISING OVER NETWORKS

The first broadcast advertising effort was carried on over station WEAF, New York, early in 1923. At that time the American Telephone and Telegraph Company, owner of the station, announced that it would permit advertisers to broadcast messages at the nominal charge of $100 for ten minutes, during which time, it was estimated, approximately 750 words could be delivered.[1] As far as is known, the first commercial venture to be undertaken over station WEAF was a ten-minute talk under the auspices of the Queensborough Corporation, promoters of the Jackson Heights development in Long Island City. Among the first advertisers to combine the sponsorship of an entertainment program with a commercial announcement was the Browning, King and Company, well-known clothing establishment, which sponsored an hour of dance music. The first feature to be handled on anything approximating a national basis was the broadcast of the Victor Company on New Year's night, 1925, at which time a large number of stations were linked temporarily to the WEAF network to carry the program.[2] Out of these beginnings there grew, in the short space of nine years, the broadcast advertising of today.

In order to establish a perspective with which to approach subsequent detailed analyses of the development of advertising over various parts of the broadcasting structure, it may be well, first to examine briefly, the probable total expenditures for broadcast advertising in the United States. This is a difficult task. Regarding many of the items involved, little information exists in usable form. Even where data are available there is a great deal of duplication between items, so that only the most tentative estimate is possible.

In order to estimate the total expenditures in the broadcast advertising field, it is necessary to know the expenditures over national and regional networks, as well as individual stations. In addition to time expenditures, payments for talent likewise must be considered, since these loom much larger in proportion to the total broadcast advertising expense than does art work and mechanical reproduction in the periodical field. Finally, miscellaneous items, such as wire charges—where paid by the program sponsor—also enter into the total. These and similar considerations, however, are probably a negligible percentage of the grand total.

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[1] *Radio in Advertising*, by Orrin G. Dunlap (Harper Bros.), p. 22.

[2] *This Thing Called Broadcasting*, by Goldsmith and Lescaboura (Holt), pp. 151-53.

With respect to the available data in this field, the only summarized information existing over any period is with regard to annual expenditures for time over national networks, collected by the Advertising Record Company, formerly the Denney Publishing Company, and presented in its *National Advertising Records*. The only data existing for other than national networks are found in the Federal Radio Commission's survey of commercial radio advertising in 1931, made in response to the Couzens-Dill resolution. Because of this fact and of the impossibility of securing even so simple a figure as gross revenue from any representative number of stations,[3] it is possible only to present data regarding total expenditures for broadcast advertising as of 1931. Even in this case the result achieved is merely a very rough approximation. Notwithstanding its tentative nature, however, it may prove of marked assistance in achieving a general appreciation of the probable total extent of broadcast advertising, and of the relative importance of the expenditures over the various elements of the broadcasting structure.

Gross receipts of broadcasting stations and networks, derived principally from the sale of time to advertisers, were reported by the Federal Radio Commission to be as follows for the year of 1931:[4]

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[3] An attempt to do this was abandoned, upon advice of experts, because of the chaotic state of many station books even in recent years, and because the turnover of station ownership further complicated the matter.

[4] *Commercial Radio Advertising*, Federal Radio Commission, pp. 43–44.

National networks		
National Broadcasting Company	$25,895,959.34	
Columbia Broadcasting System	11,621,424.31	
Total expenditures over national networks		$37,517,384.65
Regional networks*		
Don Lee Network	$ 999,832.79	
Yankee Network	779,529.94	
Total expenditures over regional networks		1,779,362.73
Expenditures over 525 individual stations†		38,461,302.41
Grand total		$77,758,048.79

* Other regional networks, formal and informal, are included in the individual station revenue, but constitute so small a sum as to be negligible, in all probability.

† This does not include all of the approximately 550 stations engaged in commercial broadcasting, about 90 per cent of the 604 stations carrying advertising programs. However, the missing ones are the very small ones, which constitute a negligible feature in broadcast advertising (*Commercial Radio Advertising*, p. 23).

This figure, however, is but an approximate approach to the actual total expenditures for broadcast advertising during the year of 1931. In the first place, there is a certain amount of talent expenditure, in addition to time expenditure, contained in both the network and individual station figures as given above. In the case of the networks, the total revenue as reported to the Commission was seen to be $37,517,384.65, as compared to the figure of $35,787,299.00 reported by *National Advertising Records*. Though it would be extremely unwise to assume the entire difference of $1,730,085.00 existing between the two figures to constitute an accurate measure of network receipts from the sale of talent,[5] it nevertheless is conservative procedure to accept the lower of the two totals and to attribute at least part of the discrepancy to the talent factor. In the case of the Yankee Network, no talent is included in the revenue, though it is impossible to tell what is the case with regard to the Don Lee Network. Likewise there is some talent payment found in the individual station total; but it probably is small, due to the fairly prevalent practice of stations in booking talent at cost and not including that charge as part of their general revenue. There is, however, no way in which to separate this talent figure from the total station revenue.

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[5] Information as to actual revenue derived by networks from the sale of talent is not available.

A more important duplication is found in the question of network payments to individual stations for the broadcasting of network commercial programs, which appear as part of both the network and individual station revenue. It is possible to eliminate this duplication at least roughly, by subtracting an estimated total network payment to individual stations of $5,967,837.62 from their total revenue. This figure is secured by assuming that approximately one-third of the item of "Other Expenses"[6] on the national network expense sheets after programs, regular employees, equipment, replacement, line charges, international broadcasting, research, and development, totaling in all $17,903,512.85, have previously been accounted for. After making this deduction, a figure of $32,493,464.79 remains, and represents roughly the revenue derived from individual stations from other than network sources.

On the basis of these corrections, it becomes possible to restate, with slightly greater accuracy, the probable total amount spent by advertisers primarily for broadcasting time, though talent purchases from individual stations still are included in the station figure.

Expenditures over national networks, including payment to individual stations but excluding talent payment	$35,787,299.00
Expenditures over regional networks	1,779,362.73
Expenditures over individual stations by national advertisers spotting programs, and by local advertisers	32,493,464.52
Total expenditures for broadcast advertising 1931, time primarily	$70,060,126.52

This figure is comparable to expenditures for space in other media, and, though it is only an approximation, it furnishes a better basis for comparison than does the *National Advertising Records*' network figure by itself. One other matter, the expenditure for talent, still remains to be considered. This is of much greater importance in achieving an appreciation of broadcast advertising than in the analogous matter of art and production costs in the publication field, since, there, costs average 5 per cent to 10 per cent of space charges, while, in broadcasting, talent may cost from 25 per cent to 200 per cent as much as time. Though talent costs are almost impossible to estimate with any accuracy, experts seem to be in fair agreement that the average cost of talent on a broadcast advertising program is from one-quarter to one-third of time.[7] On this basis, talent expenditures of broadcast advertisers should range between $17,515,033.63 and $21,353,375.51, making a total broadcast advertising expenditure for 1931 of approximately from $87,575,158.15 to $91,413,502.00.[8]

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[6] This figure is secured from a summary of expenses appearing on page 50 of *Commercial Radio Advertising*. It includes, in addition to payments to member stations, expenses such as agency commissions, cost of talent for outside sale, rent, and some overhead. It is the opinion of Paul F. Peter, chief statistician of the National Broadcasting Company, that about one-third of the total figure represents payments to stations.

Another interesting approach to the amount of broadcast advertising carried on in the United States in 1931 is found in the compilation of the Federal Radio Commission as to the total and commercially sponsored hours broadcast over 582 stations in the country during the second week of November of the year in question.[9] Of the 43,054 hours and 58 minutes of programs broadcast during the seven-day period under observation, 15,561 hours and 42 minutes, comprising 36.14 per cent of the hours broadcast, were devoted to commercial programs. Network commercially sponsored programs constituted 7.9 per cent of the total hours broadcast by the stations, while commercial programs originating in the individual stations and broadcast by them[10] amounted to 28.24 per cent of the total hours broadcast. Viewing the matter from another angle, the total commercial hours broadcast by a sample comprising 95.1 per cent of the stations of the country stated that 21.87 per cent were devoted to network programs and 78.13 per cent were utilized for the broadcasting of commercially sponsored programs originating in individual stations. The foregoing percentages are comparable to the relative proportion of total money expenditures devoted to network or individual station broadcasting, which, for networks, amounts to 53.6 per cent of the money spent for broadcast advertising—51.1 per cent over national networks and 2.5 per cent over regional networks, and 46.4 per cent over individual stations. The discrepancy between the proportion of commercial hours and the money expenditures over individual stations is explained by the extremely low charges made by the smaller broadcasting stations for the use of their facilities. Thus the average rate per quarter-hour nighttime throughout the country for a less than 100-watt station is $15.32, for 100-watt stations $18.80, for 5,000-watt stations $99.28, and for higher-powered stations $172.95.[11]

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[7] This is the consensus of opinion of fifteen station managers and several network officials.

[8] This is compared to the usual estimate of an approximate total expenditure of nearly two billion dollars for all advertising annually during the 1929–30 period.

[9] *Commercial Radio Advertising*, Federal Radio Commission, p. 31.

[10] Network programs include both national and the two regional networks reported. Individual station hours include all regional network hours other than those of the Yankee and Don Lee networks, probably a negligible amount.

With this estimate of total broadcast advertising expenditures as a starting point, it now becomes possible to enter upon a detailed analysis of the development of advertising over the various parts of the broadcasting structure; and of these, national network advertising will be the first to be considered. A number of factors combined to make this form of broadcast advertising the most important one. The national networks were the first part of the broadcasting structure to make available organized facilities for broadcast advertising to the prospective program sponsor. They could do this because they were best equipped both from the viewpoint of financial resources and management to develop adequate program service and to contact the potential users of radio as an advertising medium. Moreover, the networks early came to dominate the broadcasting structure of the country. This they did because the individual station sorely needed both the program service and such business as the network office could throw its way. Neither from the viewpoint of program development nor as regards contacting the advertiser could the individual station make much headway until increased advertising agency knowledge of broadcasting, an improved middleman structure for contacting the agency, and better program facilities arising out of more scientific station technique and the rise of electrical transcriptions made possible the development of so-called spot broadcasting in 1929 and 1930. Finally, the development of national broadcast advertising found an equally cogent reason for its priority and dominance of the field in the fact that it was the large national advertiser who could benefit most from this new medium of mass communication—reaching millions of people scattered far and wide throughout the country—and that, in addition, it was he who financially was best equipped to make the large expenditures required; for though radio may be a cheap medium when cost is matched versus circulation, it does require the outlay of large absolute sums when undertaken on any extended scale or over a long period of time.

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[11] *Commercial Radio Advertising*, Federal Radio Commission, pp. 24–25.

The growth of broadcast advertising over national networks is indicated in Table XIX, which represents annual expenditures for time over the two national network companies.

TABLE XIX

TIME EXPENDITURES FOR BROADCAST ADVERTISING OVER NATIONAL NETWORKS*

Year	Money Expended for Time	Percentage of Increase over Previous Year
1927	$ 3,832,150	....
1928	10,252,497	167.5
1929	19,729,571	80.6
1930	26,819,156	43.2
1931	35,787,299	33.5
1932	39,106,776	9.3

[*] *National Advertising Records.* The foregoing figures are at the contract rate of one broadcast, discount for longer periods not having been subtracted. This would average slightly over 5 per cent if computed. *National Advertising Records* is the source of practically all of the network figures in this chapter, though some of the industrial summations have been taken from special presentations made by the National Broadcasting Company.

The table is an interesting example of the rise of a new industry, wherein it must find its normal level in the competitive structure before it becomes subject to all of the cross currents prevalent in the field. In spite of the depression, radio broadcast advertising has forged steadily ahead until 1932 when the first indications became evident that it was beginning to reach the limit of its spectacular growth and to enter the second period of its history, that of an established medium, capable of further growth to be sure, but not at the same high rate which it previously had experienced. Even with respect to 1932, it is interesting to note that the first six months of the year were one of the most successful periods in the history of network advertising. Money expenditures over networks, at least, were approximately 50 per cent greater than during the same period of the preceding year during January and February, 1932, as also had been the case during the closing months of 1931. This rate of growth, however, declined as the summer approached, reaching a low ebb of 5.7 per cent in June. During the last six months of 1932 network broadcast advertising was about 10 per cent below the figure for the previous year, though still considerably above total expenditures for the same period in 1931.

A second comment is necessary regarding the interpretation of the foregoing table, which observation, in turn, possesses significance. It must be remembered at all times that radio broadcast advertising has experienced the major portion of its growth during one of the most severe depressions this country has faced. Had prosperity continued, or the business decline been less severe, both the rate at which broadcast advertising has grown and the variety of the industries which have employed it as a medium probably would have presented a very different picture from that of the present time. It is especially important that this fact be kept in mind when an attempt is being made to judge the efficacy of the medium from the present extent of its use, or to deduce who should employ it.

Another interesting approach to an analysis of the growth of advertising over national networks is found in a comparison of the number of hours of commercial programs broadcast by networks to the total hours broadcast. This is found in Table XX for the three key stations of the NBC Blue (WJZ), NBC Red (WEAF), and Columbia networks as of the second week in November, annually.

Other than the decline in commercial hours broadcast in November, 1932, mentioned previously, the most interesting feature of the table is the fact that the commercial hours broadcast over network key stations have tended to increase more slowly than the total money expenditures for broadcast advertising over networks. One of two factors may explain this tendency. Either network rates have increased sufficiently to cause the discrepancy or else advertisers are making wider use of network facilities, employing more stations. Examining the former, one finds that network charges for time have increased approximately 28.5 per cent since 1928,[12] and about 11.1 per cent since 1930. Thus increased national network charges explain but a small part of the more rapid growth of money expenditures over national networks than actual commercially sponsored hours broadcast. As a digression it is interesting to note that while basic network rates were increasing 28.5 per cent, the number of stations purchased on this basis had increased 14.0 per cent, and the total watt power represented by these stations had risen 88.6 per cent, while the number of receiving sets reached by the various basic networks had been augmented by no less than the national rate of growth or 38.4 per cent. Thus, on the basic networks, the advertiser of today receives more facilities and circulation per dollar expended than did the advertiser of five years ago.

TABLE XX

PROPORTION OF COMMERCIAL TO TOTAL HOURS BROADCAST OVER THE KEY STATIONS OF THE RED, BLUE, AND COLUMBIA BASIC NETWORKS, ANNUALLY, DURING THE SECOND WEEK OF NOVEMBER, 1927–32*

Year	Average Number of Commercial Hours Broadcast per Key Station	Percentage Increase or Decrease over Previous Year	Percentage of Commercial to Total Hours Broadcast
1927	14.65	....	20.5
1928	19.84	+35.5	27.7
1929	29.46	+48.5	24.7
1930	35.24	+19.6	29.2
1931	42.22	+19.8	36.5
1932	31.50	−25.4	25.5

* The second week in November was selected because, in the opinion of the Federal Radio Commission, it constitutes a representative period in the broadcasting year. It was used as the base of the Commission's study of commercial radio advertising, and therefore possesses the advantage of comparability to that work. In other parts of this work similar tabulations have been employed for the second week of February, May, and August, respectively, but these are more significant with respect to seasonal trend than in indicating growth over a long period. The representativeness of November is further attested to by the fact that the percentages for this month are practically identical to those of the ensuing February, which lies within the same broadcasting period, most contracts beginning in October or November and continuing until April or May. It was impossible to tabulate data from more than four weeks of the year since the process involved an actual count of every hour from the original program sheets, a severe and costly task even for the period covered.

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[12] The foregoing rate estimate is based upon the charge of one-half hour evening time on the basic network, a unit which has probably been the most frequently purchased during the period under investigation. The rate is as of August, 1932.

However, with regard to the question at hand, the more rapid growth of total money expenditures for network advertising than of commercial hours broadcast seems to find its chief explanation in a wider use of the network facilities. This conclusion finds confirmation in Table XXI which indicates the

TABLE XXI

AVERAGE NUMBER OF STATIONS USED PER COMMERCIAL PROGRAM BROADCAST AFTER SIX P.M. OVER THE RED, BLUE, AND COLUMBIA BASIC NETWORKS DURING THE SECOND WEEK OF NOVEMBER, 1927–32*

National Broadcasting Company

YEAR	RED BASIC NETWORK			BLUE BASIC NETWORK		
	Number of Stations on Network	Average Number Used per Program	Percentage More or Less than Basic Network	Number of Stations on Network	Average Number Used per Program	Percentage More or Less than Basic Network
1927	21	14	−33.3	7	7	Equal
1928	23	18	−21.7	10	10	Equal
1929	25	25	Equal	10	13	+30.0
1930	26	28	+ 7.7	12	13	+ 8.2
1931	26	26	Equal	13	15	+15.4
1932†	26	26	Equal	13	19	+46.1

Columbia Broadcasting System Basic Network

Year	Number of Stations on Network	Average Number Used per Program	Percentage More or Less than Basic Network
1927	...	...	...
1928‡	17	...	...
1929	24	15	−37.6
1930	24	20	−16.7
1931	24	24	Equal
1932†	26	33	+26.9

* Source: Network program sheets. Basic networks have been used for comparison because they are the fundamental unit of purchase and as such constitute a relatively steady base of comparison. Only programs after 6 P.M. have been considered since these constitute the great majority of broadcast advertising endeavor and are most typical of practice, looming much the largest in total expenditure.

† The second week in May, the latest data available for 1932.

‡ The Columbia Network was formed the latter part of this year, at which time there was no division between basic and supplementary networks, nor are data available as to the number of stations used.

average number of stations used on commercially sponsored programs on the Red, Blue, and Columbia Basic networks, as compared with the total number of stations on each of these networks.

In spite of the fluctuations between networks and various years, a steady upward trend is noticeable in the data. The general effect of the increased use of the various station outlets for the average broadcast is illustrated in Table XXII, which shows the relative growth of the average commercially sponsored station hours as against the average of all station hours[13] broadcast over the three major networks—the two of the National Broadcasting Company and the one of the Columbia Broadcasting System —including supplementary units as well as basic networks.

TABLE XXII

RELATIVE GROWTH OF COMMERCIALLY SPONSORED AS AGAINST TOTAL STATION HOURS BROADCAST OVER NATIONAL NETWORKS DURING THE SECOND WEEK OF NOVEMBER, 1927–32

Year	Average Station Hours of Commercial Programs	Percentage Increase or Decrease over Previous Year	Average Station Hours of All Programs	Percentage Increase or Decrease over Previous Year
1927	136.40	....	275.55	....
1928*	313.69	+130.0	708.63	+157.2
1929	655.03	+108.9	1540.41	+117.5
1930	772.19	+ 10.3	2285.70	+ 48.4
1931	1013.43	+ 40.3	2697.01	+ 13.6
1932†	861.75	− 14.9	3251.69	+ 10.6

* The Columbia System first entered in this year, which accounts for the sudden rise in the following year, when it first operated over a wide area.

† May, 1932, the last data available. Part of this decrease is seasonal.

In spite of the many contradictory forces at play, the general trend toward a swifter growth of commercial station hours than of commercial hours broadcast by key stations stands forth clearly, thus confirming the trend noted in Table XXI, dealing with the average number of stations used per broadcast. The importance of the network sustaining service to member stations is indicated by the fact that, with the exception of one year, 1931, the total station hours increased more rapidly than did the commercial station hours, indicating a continually wider use of the network sustaining programs. The full significance of this fact will be discussed in greater detail in the chapter dealing with program practice.[14]

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[13] "Station hours" is a measure similar to ton miles and is derived by multiplying the length of a given program by the number of stations over which the program is broadcast. It is the ideal measure of network broadcast showing, as it does, the extent to which programs are broadcast over the whole network, and thus indicating complete network behavior. However, because of the extreme difficulty of calculation, it is impractical for wide application unless the resources of a large statistical department are at one's disposal. In the case of the total network station hours, *this is not the total hours broadcast by affiliated stations, but only of the hours originating on the network.* The former would make the perfect base for a measurement of the proportion of commercial to total hours broadcast, but unfortunately cannot be computed with any accuracy.

TABLE XXIII

NUMBER OF COMPANIES BROADCASTING ANNUALLY OVER NATIONAL NETWORKS, TOGETHER WITH AVERAGE EXPENDITURE PER COMPANY, 1927–32*

Year	Number of Companies	Percentage Increase or Decrease over Previous Year	Average Expenditure per Company	Percentage Increase over Previous Year
1927	81	....	$ 48,298	....
1928	160	+99.9	64,078	32.7
1929	237	+48.1	79,028	23.3
1930	297	+25.3	90,302	14.1
1931	384	+29.3	93,208	3.2
1932	303	−21.1	129,065	38.4

* Source: Tabulations of the National Broadcasting Company for both networks.

Of equal interest to the trend in total expenditures and general use of network as advertising media, is the question of the number of companies broadcasting over networks, the length of time these companies remain on the air, and the turnover among them. The trend regarding the first-mentioned of these features is found in Table XXIII.

It will be noted that the rate of increase in the number of advertisers over national networks was proportionately less each year until 1930, following which it remained comparatively steady until 1932, when the first decline in program sponsors was experienced in the history of network broadcast advertising. The slowing up of the rate of growth in number of advertisers in 1928 and 1929 was merely the usual corollary of the early years of an industry. Though the absolute growth continued to be great, it could hardly be expected to be proportionate in later years to what it had been at the outset.

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[14] Chap. xi.

The decline in the number of network advertisers is explainable only when the average expenditure per advertiser also is taken into consideration. With regard to this factor, the rate of increase lagged uniformly behind that of the number of clients, indicating that much of the growth in network broadcast advertising during the period of 1929-31 was due to the entrance into the field of a large number of smaller concerns with limited appropriations. However, in 1932, the situation reversed itself, and, though the number of advertisers declined by more than one-fifth, the average expenditure for network advertising rose by almost 40 per cent. Thus it becomes evident that the smaller program sponsor is tending to discontinue his broadcast advertising.

The trend in the length of time during which network broadcast advertisers remain on the air during a given season is indicated in Table XXIV.

The most interesting feature of this table is the fact that the number of accounts running nine months and over have been increasing more rapidly than other types of business. Thus today, one-fifth of the concerns, and undoubtedly much more of the money expenditures, remain on the air throughout the entire year. This not only indicates a probable smoothing of the seasonal curve for radio broadcast advertising, which will be discussed in a later chapter,[15] but also that broadcasting is attracting a more stable type of clientèle annually. The full significance of this, in turn, will become more evident when the type of industries engaging in broadcast advertising is discussed later in the chapter. Of equal interest to the decided growth in the number of long-term accounts has been the steady decrease in the number of concerns broadcasting for periods under three months in duration. This probably is the strongest indication of all that the experimental broadcast advertiser of the early days of radio is passing from the air.

The general conclusion that national network business is becoming more stable as to its base is further reinforced by an examination of the clients dropping broadcast advertising during the season 1931–32. During the period ending June 30, 1932, a total of 134 concerns discontinued broadcast advertising, while 20 concerns entered the field, leaving a net loss of 114 companies. Much of this loss was seasonal in nature, the companies planning to resume in the autumn. Of the companies discontinuing broadcasting, 26 or 22.8 per cent had been on the air since 1929 or earlier, and were largely manufacturers of radios, typewriters, and other industries which have been especially hard hit by depression. Another 30 concerns, or 26.3 per cent, had been on the air less than three months, and constituted the "floating" portion of the broadcast advertising business. The remaining 50.9 per cent had been on the air, for the most part, either a year or less, and constituted to a large extent the seasonal decline in the industry. Thus the vast majority of the network drops are shown to be either seasonal in nature or, on the part of experimental advertisers, the older and more established users of broadcast advertising continuing today as in previous years.

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[15] See chap. x.

TABLE XXIV

NUMBER OF COMPANIES BROADCASTING OVER NATIONAL NETWORKS FOR PERIODS OF DIFFERENT LENGTH, 1927–32 (JUNE 30–JUNE 30)*

DURATION OF BROADCASTING SERIES	1927–28		1928–29		1929–30		1930–31		1931–32	
	Number of Companies	Percentage of Total	Number of Companies	Percentage of Total	Number of Companies	Percentage of Total	Number of Companies	Percentage of Total	Number of Companies	Percentage of Total
Under 3 months......	37	33.6	43	23.1	51	18.6	64	18.9	61	17.9
3 months and under 6 months...........	29	26.3	62	33.3	88	32.2	94	27.9	104	29.9
6 months and under 9 months...........	20	18.1	28	15.1	47	17.2	71	21.0	62	17.4
9 months and under 12 months...........	11	10.0	20	10.7	37	13.6	38	11.2	48	13.8
12 months..........	13	12.0	33	17.8	50	18.4	71	21.0	73	21.0
Total..........	110	100.0	186	100.0	273	100.0	338	100.0	348	100.0

* The reader will notice that the present table is constructed on the basis of June 30–June 30 instead of the calendar year. This was done to avoid splitting up programs and showing series of shorter duration than actually existed, since the broadcasting season usually extends from October to April or May, with the midsummer months the low ebb. Other tables have not been presented on this basis because of two reasons: (1) The fact that data regarding other media are presented on a calendar basis and using any other form would destroy the possibility of comparison, and (2) because important broadcasting data, such as those of the Federal Radio Commission study, cannot be reduced to the June 30 basis.

Two additional features remain to be discussed regarding network advertising as a whole, before entering upon an analysis of the industries comprising this advertising. The first of these is the question of shifts of clients from one network to another, and the second, the trend regarding the same company sponsoring programs over both the National Broadcasting Company and Columbia Broadcasting facilities. With regard to the former, these have been surprisingly few, and such as there have been were rather evenly distributed between the two great network companies. In 1929 there were five shifts,[16] the National Broadcasting Company gaining two, and the Columbia Broadcasting System gaining three concerns from its competitor. In 1930, the eight shifts which occurred were evenly divided between the two networks, as was again the case with the six shifts which occurred in 1931. In 1932, up to June 30, the National Broadcasting Company had gained three clients from its competitor, and the Columbia Broadcasting System two concerns. In five years, there were a total of fifty concerns who discontinued broadcasting on one network, and at a later date resumed activities on the other. Of these companies, 50 per cent resumed broadcasting with no more than a summer season intervening;[17] another 26 per cent returned to network broadcasting during the following year; 20 per cent resumed their broadcast advertising efforts on a competing network after a two-year lapse, while the remaining 4 per cent did so after an interval of three years. There were relatively few companies who had broadcast on one network, and who returned to the same network after a longer interval than five months ensuing between broadcasts.

Though the number of companies sponsoring programs over both the National Broadcasting Company and Columbia Broadcasting System facilities still is small, there has been a marked trend in this direction within the past few years. The concerns broadcasting over both networks have been primarily either holding companies, advertising several products, or food, soap, and toilet good companies seeking to reach the maximum audience. In 1928 two companies made this their practice; in 1929 six concerns; ten in 1930; twenty in 1931; and, during the first six months of 1932, seventeen concerns sponsored broadcasts over both networks.

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[16] A shift is here interpreted as a company which leaves one network and resumes broadcasting on a competing network during the same calendar year, with not more than a five-month interval, e.g., from the end of April to beginning of October (the long seasonal lay-off) between broadcasts.

[17] Twenty-four of these shifts were discussed at the outset of this part of the chapter. The twenty-fifth instance occurred in 1928 when the Columbia System was first established.

Having discussed the general aspects of the use of national networks as advertising media, the next question which arises is as to what industries avail themselves of network facilities. Basic information with regard to the amounts spent by various industrial groups is found in Table XXV, while their relative rate of growth is depicted in Charts IV to VIII, inclusive.

A brief word of explanation regarding the various classifications of goods is in order. The classification itself is a standard one adopted by *National Advertising Records* for all media, including broadcasting. Since the original records were for the periodical field, some of the classifications pertain more definitely to magazines and newspapers than to broadcast advertising. The meaning of other groupings, however, is sufficiently clear to require no explanation. Among the less definite classifications are the following, whose significance in broadcast advertising is primarily of the nature herein indicated: (1) garden, which is largely confined to broadcasts such as the Davey Tree program; (2) machinery and mechanical supplies, devoted almost exclusively to electrical household equipment and contains no industrial goods; (3) hardware and paints, primarily the latter rather than the former; (4) shoes and leather goods, which in the case of broadcast advertising are almost exclusively shoes; (5) magazines, books, and stationery, wherein magazines predominate almost to the exclusion of the other two; (6) office equipment, consisting largely of typewriters and fountain pens; (7) travel and amusement, which is predominantly the motion-picture industry but at times has included to a much lesser degree concerns such as Thomas Cook and Sons; and (8) miscellaneous, wherein are grouped most of the experimenters and smaller advertisers who are scattered far and wide throughout industry and trade.

An examination of Table XXV, and of Charts IV-VIII, reveals that it is the food, drug, and toilet goods, and tobacco industries which constitute the backbone of American broadcast advertising, accounting for approximately two-thirds of the

TABLE XXV

BROADCAST ADVERTISING EXPENDITURES FOR TIME OVER NATIONAL NETWORKS*

	1927	1928	1929	1930	1931	1932
Foods and food beverages	$ 427,830	$ 733,476	$ 2,025,176	$ 5,264,116	$ 8,957,021	$11,297,227
Drugs and toilet goods	310,447	977,553	1,940,562	3,239,753	6,106,667	8,526,268
Cigars, cigarettes, and tobacco	37,000	385,030	1,348,502	2,076,114	5,371,117	6,245,223
Automobiles	433,063	1,249,000	1,702,803	1,355,414	1,313,923	1,939,094
Lubricants and petroleum products	21,940	311,279	961,439	1,495,338	1,183,346	2,303,331
Confectionery and soft drinks	260,402	701,164	563,984	839,070	1,359,919	1,635,096
Insurance and Financial	471,006	656,147	923,377	1,209,644	1,493,351	1,251,977
Soaps and housekeepers' supplies	90,759	182,146	238,372	532,998	1,419,883	1,119,592
Magazines, stationery, and books	171,187	602,478	886,044	1,421,922	1,359,001	750,296
Shoes, trunks, bags, etc.	45,150	190,135	367,293	834,392	1,261,430	396,151
Machinery and mechanical supplies	9,900	13,830	592,947	910,151	727,041	657,615
Paints and hardware	18,393	28,092	143,054	198,696	727,243	435,955
Furniture and furnishings	205,758	409,589	581,326	626,283	795,841	255,672
Clothing and dry goods	11,593	61,787	315,179	581,051	575,139	395,144
Radios, phonographs, and musical instruments	1,143,364	2,081,776	3,740,762	2,402,508	909,957	167,757
Sporting goods	18,180	44,500	75,893	167,228	269,003	97,678
Building materials	30,000	42,144	233,704	683,065	387,749	18,296
Jewelry and silverware	26,580	45,595	41,120	432,049	113,770	150,638
Garden	....	4,748	936	91,664	87,380	60,690
Travel and amusement	23,342	99,243	866,906	1,359,618	170,821	41,551
Office equipment	79,485	22,760	43,626	77,053	83,522	35,653
Schools, camps, and correspondence courses	6,258	....	....	20,379	17,237	....
Miscellaneous	7,217	1,407,023	1,118,566	997,670	1,096,938	1,325,870
Total	$3,832,492	$10,251,495	$18,729,571	$26,816,156	$35,787,299	$39,106,776

* *National Advertising Records* (Denny Publishing Co.)

CHART IV

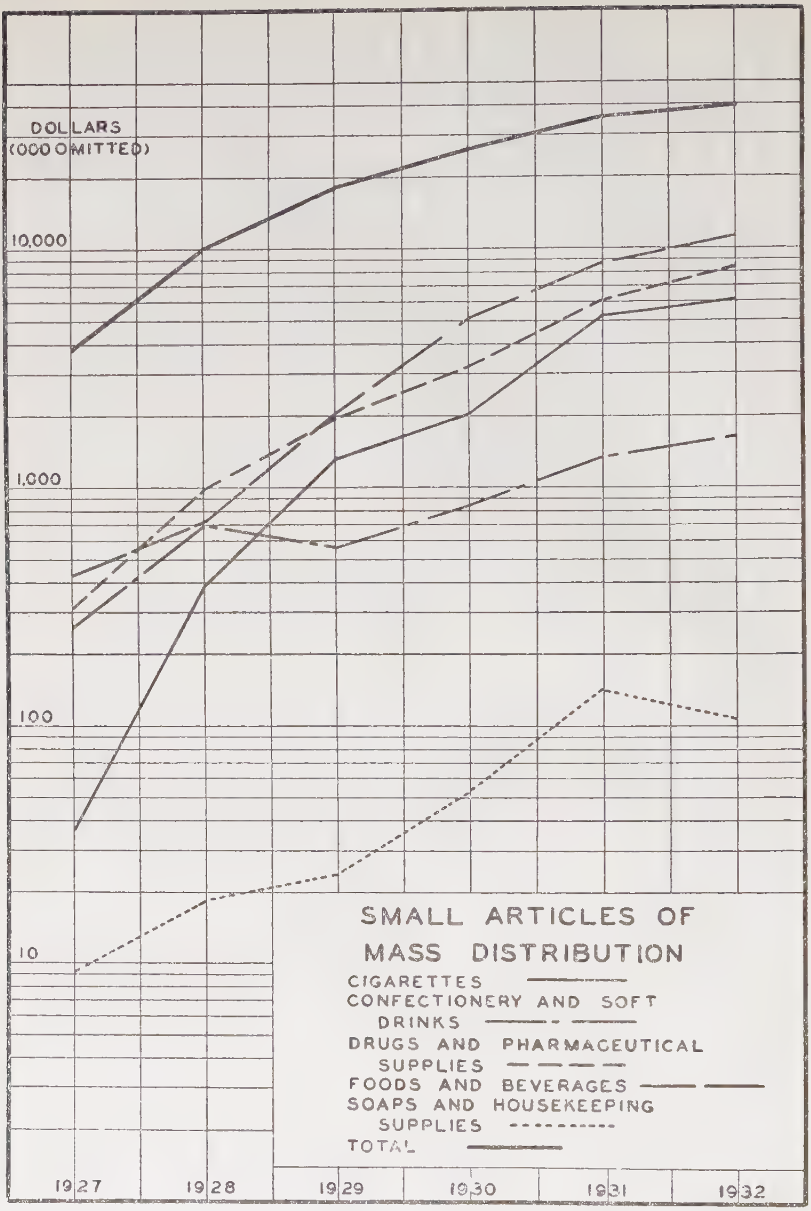

DOLLARS
(000 OMITTED)
10,000
1,000
100
10
SMALL ARTICLES OF MASS DISTRIBUTION
CIGARETTES
CONFECTIONERY AND SOFT DRINKS
DRUGS AND PHARMACEUTICAL SUPPLIES
FOODS AND BEVERAGES
SOAPS AND HOUSEKEEPING SUPPLIES
TOTAL
1927
1928
1929
1930
1931
1932

CHART V

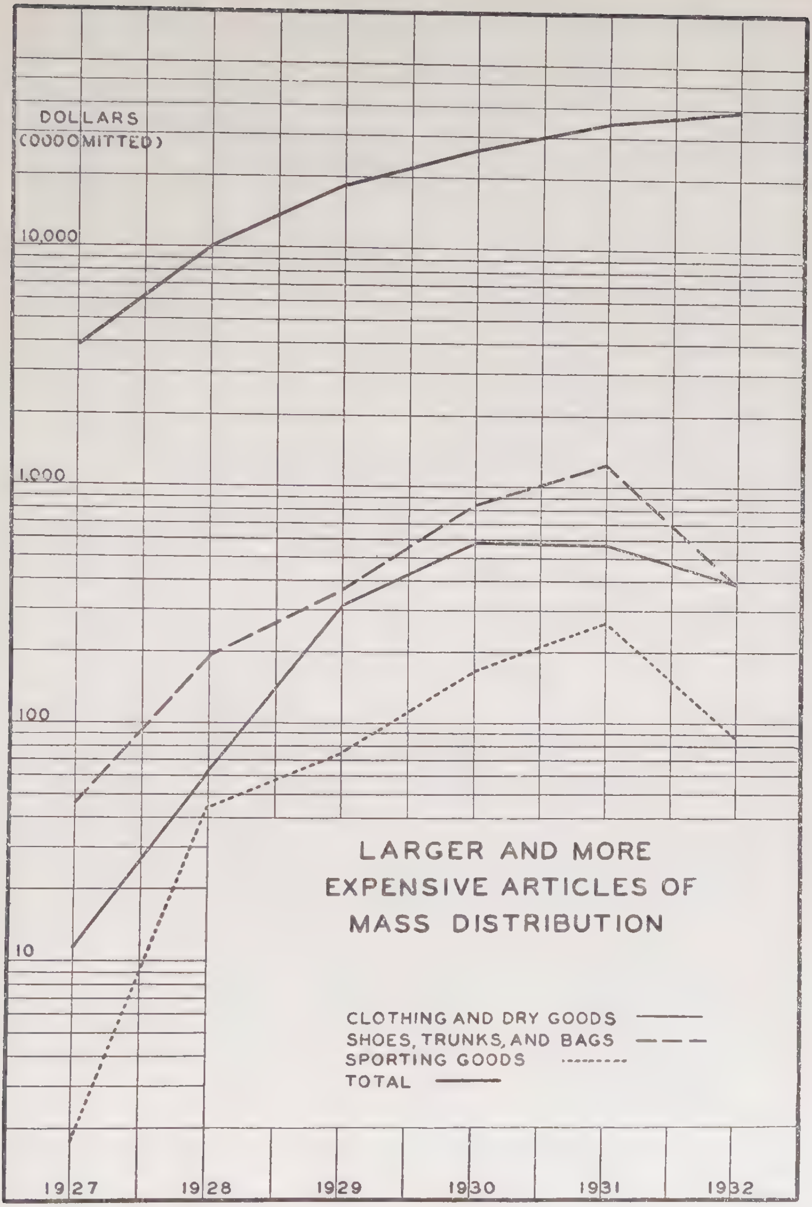

DOLLARS
(000 OMITTED)
10,000
1,000
100
10
LARGER AND MORE EXPENSIVE ARTICLES OF MASS DISTRIBUTION
CLOTHING AND DRY GOODS
SHOES, TRUNKS, AND BAGS
SPORTING GOODS
TOTAL
1927
1928
1929
1930
1931
1932

CHART VI

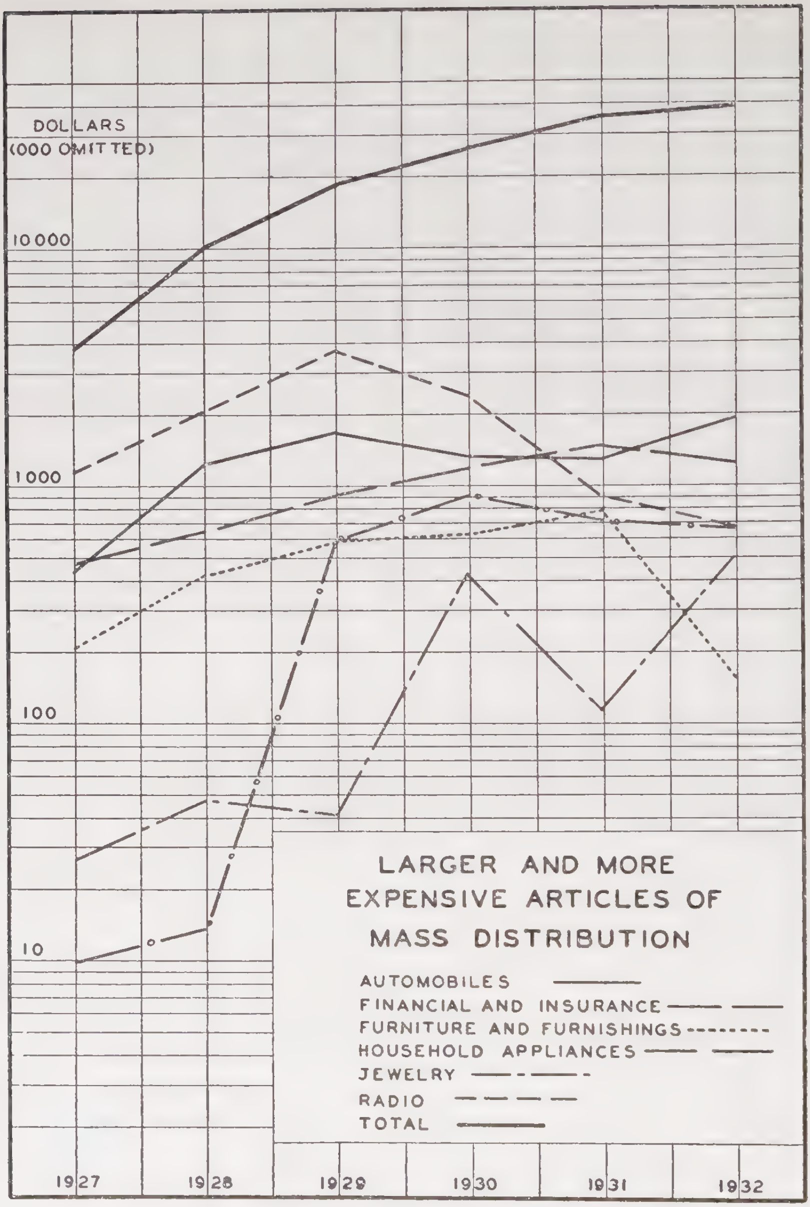

DOLLARS
(000 OMITTED)
10 000
1000
100
10
1927
1928
1929
1930
1931
1932
LARGER AND MORE EXPENSIVE ARTICLES OF MASS DISTRIBUTION
AUTOMOBILES
FINANCIAL AND INSURANCE
FURNITURE AND FURNISHINGS
HOUSEHOLD APPLIANCES
JEWELRY
RADIO
TOTAL

CHART VII

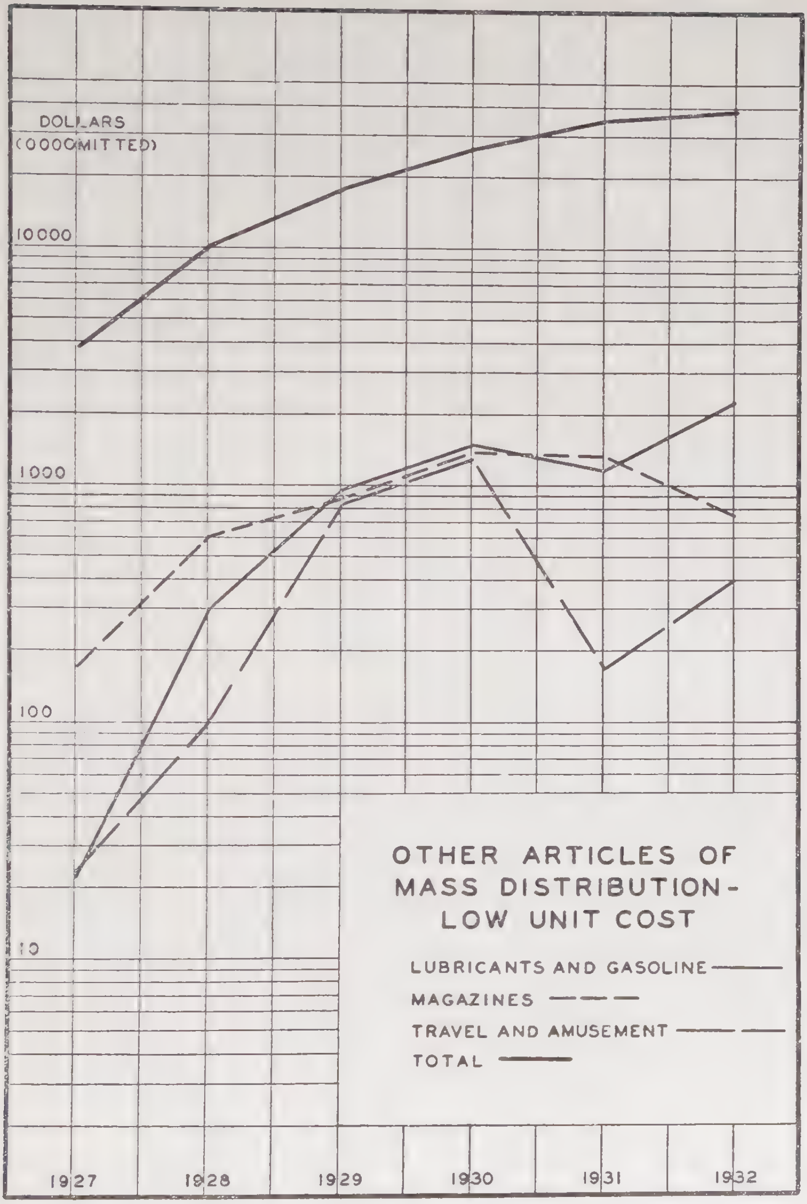
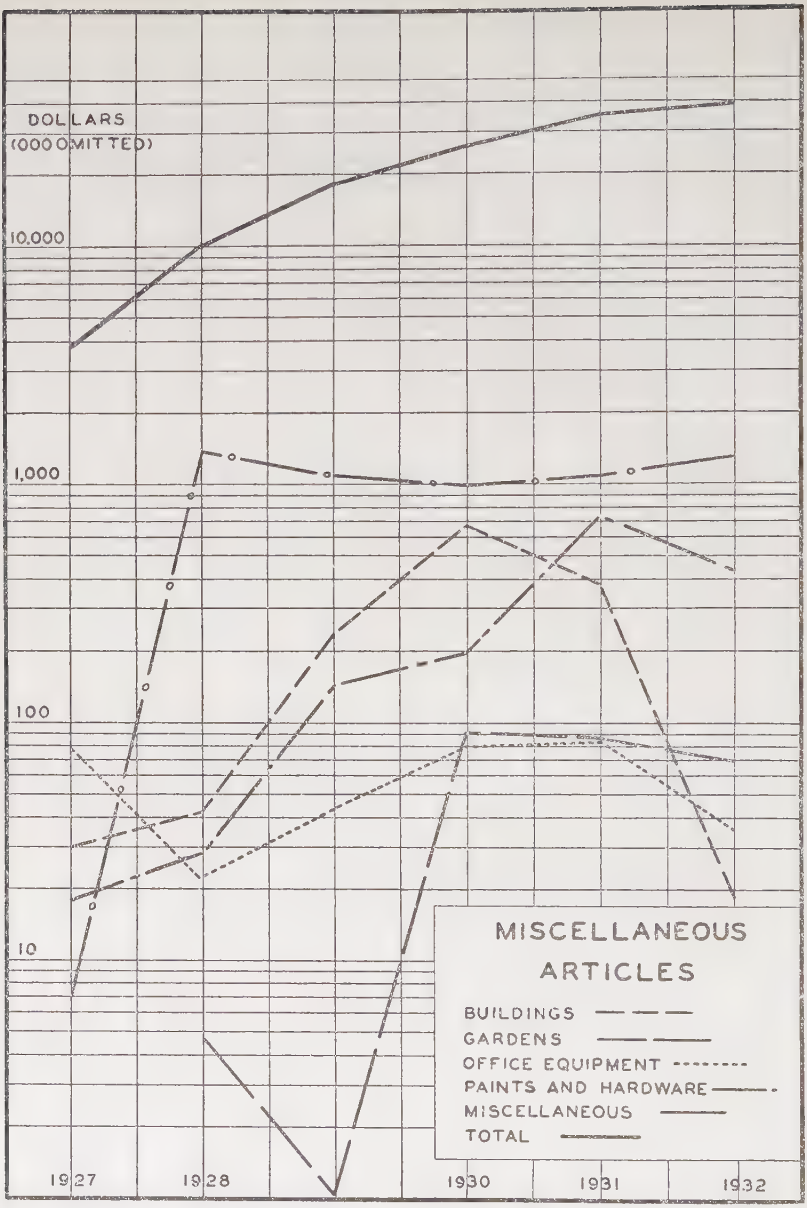

DOLLARS
(000 OMITTED)
10000
1000
100
10
1927
1928
1929
1930
1931
1932
OTHER ARTICLES OF MASS DISTRIBUTION - LOW UNIT COST
LUBRICANTS AND GASOLINE
MAGAZINES
TRAVEL AND AMUSEMENT
TOTAL

CHART VIII


DOLLARS
(000 OMITTED)
10,000
1,000
100
10
1927
1928
1930
1931
1932
MISCELLANEOUS ARTICLES
BUILDINGS
GARDENS
OFFICE EQUIPMENT
PAINTS AND HARDWARE
MISCELLANEOUS
TOTAL

total expenditures for network time. This is even more vividly presented in Chart IX, which shows the relative proportion of total broadcast advertising expenditure for time over national networks represented annually by these industries.

Of these three leaders in network advertising, food looms the most important, and has enjoyed the steadiest growth. In 1927 expenditures by the food industry for broadcast advertising totaled $427,830, which placed it a close fourth to the automotive group. Since then the industry has increased steadily in importance as a broadcast advertiser, until in 1932 it topped the entire field with a total expenditure of $11,297,227. The number of food concerns on the air likewise have grown from 7 companies in 1927 to 76 in 1931. Of the total expenditures for broadcast advertising by the food industry in 1931, approximately 45 per cent was by the flour and cereal group; 22 per cent by beverages, such as coffee and tea, and dairy products; 14 per cent by the canned goods group; 11 per cent by chain stores, almost exclusively the Atlantic and Pacific Tea Company; and 8 per cent by condiments and relishes.[18]

The drug and toilet goods industry ranks second in 1932 with a total expenditure of $8,526,268. This group rose from fifth place as to network advertising expenditures in 1927 to its present high position, the number of advertising companies increasing from 11 to 52 in the year of 1931. Of the sponsor concerns, approximately 67 per cent were manufacturers of toilet articles, with dentifrices and mouth washes constituting almost half of the expenditures in this sub-group. Toilet soaps accounted for about 20 per cent of the network advertising expenditures by the group, while drugs and cosmetics completed the picture.

Cigarette and tobacco advertising over networks is highly concentrated, totaling but 12 sponsoring companies in 1931. This group as a whole started comparatively late in the field of broadcast advertising, but since 1928 has shown a greater growth in broadcast advertising expenditures than any other industry.

The insurance and financial group constituted one of the first

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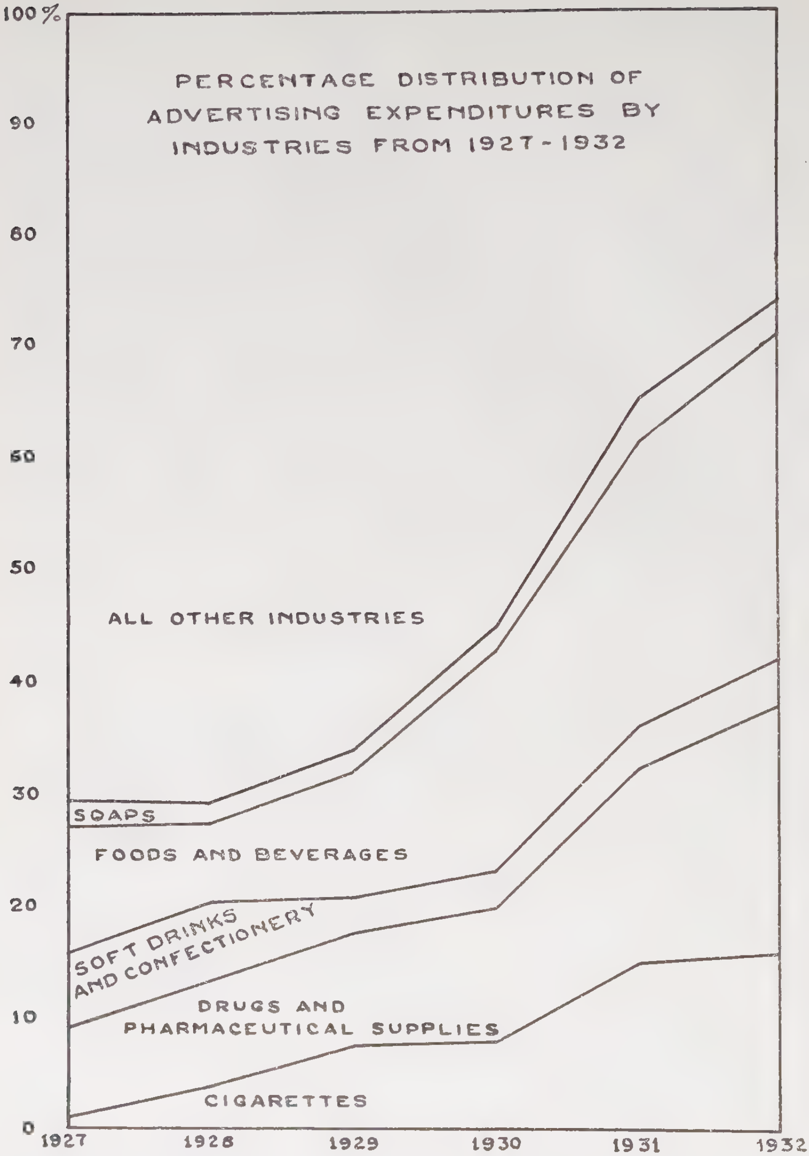
[18] The sources of the data throughout this discussion of network advertising are *National Advertising Records* and the *Industrial Reports* prepared by the Statistical Department of the National Broadcasting Company. The number of concerns is given as of 1931 since these are the last compilations available at the present writing.

CHART IX



100%
90
80
70
60
50
40
30
20
10
0
PERCENTAGE DISTRIBUTION OF ADVERTISING EXPENDITURES BY INDUSTRIES FROM 1927-1932
ALL OTHER INDUSTRIES
SOAPS
FOODS AND BEVERAGES
SOFT DRINKS AND CONFECTIONERY
DRUGS AND PHARMACEUTICAL SUPPLIES
CIGARETTES
1927
1928
1929
1930
1931
1932

users of broadcast advertising. Beginning with the Metropolitan Life Insurance Company in 1926, and the Cities Service Company in 1927, this group has shown a steady but not especially spectacular growth in broadcast advertising expenditures. The effort in this field is highly concentrated, being limited to 7 companies in 1931. Most of the advertising done by these concerns is institutional in nature and on an especially dignified plane.

Soaps again are confined to a few large companies, such as Lever Brothers and Procter and Gamble. From eighth place in 1927, the broadcast advertising expenditures of this group have risen steadily until soap manufacturers promise to become among the most important users of network facilities.

Confectionery and soft drinks, especially ginger ale, were one of the earliest users of broadcast advertising over networks. Their growth has been sporadic, and broadcasting by this group is at present confined to several ginger ale companies and Wrigley's Chewing Gum, with an occasional candy manufacturer.

The automotive industry is especially interesting, from the viewpoint of its broadcast advertising expenditures. Network advertising has always been highly concentrated in this field, with only 8 companies, in all, having participated since 1927, and with General Motors the only consistent user of radio. At no period have there been more than two or three automobile manufacturers broadcasting at the same time, so that figures for this group largely represent General Motors Corporation expenditures. In the magazine field, *Collier's*, *True Story*, and *Time* have been the outstanding examples, with the last-mentioned the only one remaining on the air today. Both *Collier's* and *True Story* experienced considerable success with their broadcast advertising effort, but declining advertising revenue in their own magazines forced curtailment of broadcasting in spite of increased circulation gained by means of the radio network.

The radio set manufacturing industry is probably the most interesting of all broadcast advertisers. Starting in first place in 1927 with an expenditure for the year of $1,143,364, it reached a peak of $3,740,762 in 1929 and since then has declined to almost insignificant proportions. Only one company remains on the air today, while the industry stands as an example of the evils of excessive expansion of productive capacity, overemphasis of price, unregulated competition, and a monopolistic system of license fees.

Having completed a general survey of the types of industries which have employed broadcast advertising over national networks in the past and who are doing so at present, it now becomes possible to summarize the trends with respect to the use of these networks as advertising media.

With regard to network advertising as a whole there seems reason to believe that it constituted approximately 54 per cent of the total broadcast advertising business of the country in 1931. What the proportion is today, it is impossible to tell, though there are reasons for believing that the individual station business has suffered from the depression more than have the networks.

There seems reason to believe that the future growth of network advertising will be at a considerably slower rate than in the past and that broadcast advertising has definitely emerged from the pioneer stage, as far as its acceptance is concerned, and is now facing the problem typical of an established medium in a period of declining advertising appropriations.

More important than the tendency toward an increased number of sponsors has been the greater use of existing network facilities by broadcasting companies, as reflected in the increased number of stations utilized per broadcast, and the more rapid rise in the number of commercial station hours, as against the number of commercial hours broadcast by the key stations of the various networks.

A marked tendency toward decreasing fluctuations in sponsorship is to be noted in the increasing proportion of companies remaining on the air throughout the entire year and the steadily declining proportion of companies broadcasting for periods of less than three months, as well as in the relatively low percentage of older broadcasters discontinuing their network effort.

Though still small numerically, there is a marked tendency for more advertisers to sponsor programs over the facilities of both great network companies. This trend is largely confined to holding companies distributing a variety of products, or to food, drug, and toilet good, and soap manufacturers, attempting to reach a maximum market.

As to the types of industries employing broadcast advertising over networks, the great majority of companies and products, as well as of total expenditures, were found to fall in the category of convenience goods: articles of small unit size, low price, high repeat sales, mass consumption, and which are distributed through a large number of outlets. These articles, such as canned foods, flour and cereals, dentifrices and mouth washes, cigarettes, soaps, ginger ale, and similar items, are goods which, though nationally advertised and branded, require constant sales effort to build up and hold any measure of consumer insistence, preference, or even acceptance. Likewise they are consumed throughout the year. Because of its widespread appeal and large circulation, its personal element, and potentialities for dramatization of the product and the brand name, radio broadcasting has constituted an effective advertising medium for industries of this type; and it probably is in this field where the greatest strength of broadcast advertising will always lie, though by no means exclusively so.

A second category of goods advertised extensively over the national networks at the present time are larger and higher-priced articles of mass consumption such as automobiles, electric refrigerators, and similar products. These again are sold to large segments of the public, and though the repeat sales are not as frequent in point of time as in the case of convenience goods, this fact is compensated for by a high degree of consumer loyalty to a given brand. Such goods are often termed specialty goods, largely because they tend to be distributed through specialized distributive agencies, and because of the specialized appeal of an individual brand as evidenced by the higher degree of consumer insistence. A final type of product advertised extensively over national networks is that of services of mass appeal, such as insurance and amusements. In all cases, however, the elements of mass appeal and mass distribution are present. Whether broadcast advertising necessarily is confined to goods of this type is a matter concerning which there is a considerable difference of opinion. As far as the present investigation is concerned, this is a question the discussion of which will be postponed until the whole process of broadcast advertising has been examined more thoroughly. A word of caution, however, again is added, to the end that the reader be not too readily tempted to assume that, because broadcast advertising has developed primarily in certain directions up to the present time, these necessarily must be the channels which it must follow in its future growth. Much of this development has occurred during highly abnormal conditions, and it remains to be seen what more settled, if not more prosperous, times will bring.

Though no detailed analysis will be presented of the competitive history of broadcast advertising as compared with other media, at least brief mention should be made at this point of the experience of magazines, newspapers, and billboards during the past few years, as against that of radio. The factors operating with respect to the various media are so many, and to date often so obscure in their operation, as to make this a fit subject for a research in itself. All that will be attempted, therefore, will be to outline briefly the major trends with respect to competing media, especially as they have developed since the year of 1929.[19]

Since 1929 all advertising media other than radio have experienced a sharp decline in revenue. In the case of newspapers this decline totaled $55,000,000 between the years of 1929 and 1931, and amounted to approximately 22 per cent of the 1929 receipts. During the same period national magazines lost approximately $37,000,000 or 18 per cent of their 1929 revenue. This was primarily during the period 1930–31, since the loss in receipts from 1929 to 1930 was but 1 per cent. The fact that, between 1930 and 1931, 34 per cent of the advertisers in magazines discontinued their advertising completely, while at the same time the average advertising appropriation rose 26 per cent during the period, indicates that the magazine loss has been largely in the small marginal advertiser. This is also largely true of the newspaper, though here such a variety of causes tend to operate that any broad, general conclusion is inadvisable without a great deal of careful and detailed investigation. Outdoor advertising likewise lost $50,000,000 during the period of 1929-31, again primarily due to the general forces of depression, while car card revenue was cut 50 per cent during the period in question. Radio broadcast advertising alone gained, which, in the writer's estimation, is due to the fact that, as a new medium, it was necessary for broadcast advertising to find its logical place in the advertising media structure before becoming subject to all of the competitive forces operative in the media field as a whole. Now that radio broadcasting seems to have outgrown this stage, one may expect broadcast advertising to face at least some of the difficulties which have been the lot of the older media during the past several years. Then, much better than today, will it be possible to discover the real vitality of this new medium.

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[19] Most of the data for this brief discussion have been taken from an excellent analysis made of the question by Howard Henderson of the J. Walter Thompson Agency, and presented before the National Association of the Teachers of Marketing at their 1932 meeting. It has been reprinted in *Broadcasting*, January 15, 1933.

Advertising expenditures by national advertisers for various media were estimated in 1931 to be as follows:[20] newspapers, $205,000,000; magazines, $167,000,000; radio broadcasting, approximately $36,000,000; outdoor advertising, $30,000,000; and car cards, $4,500,000, amounting in all to $442,500,000. Of the total amount, therefore, radio broadcasting constituted less than one-tenth. This, of course, is merely taking network time expenditures, total national advertising revenue from both network and spot broadcasting undoubtedly reaching a somewhat higher figure.

A final factor in the field of network advertising is the amount and nature of the broadcast advertising effort carried on over regional networks. As stated earlier in the chapter, advertising over the two principal regional networks, the Yankee and the Don Lee networks, amounted in 1931 to $1,779,362.73. This is the only figure available in the field, and probably includes the great majority of expenditures on regional networks. With regard to the type of industries sponsoring programs over regional networks, a great similarity exists between them and national network advertisers. Thus in July, 1932, 27 per cent of the Yankee Network advertising was by the food industry, 14 per cent by the drug and toilet goods group, and 12 per cent by the tobacco companies, comprising in all 53 per cent of the total regional business. Out of 131 companies broadcasting over the network during the year of 1931, 54.9 per cent were manufacturers with national distribution, and 45.1 per cent regional or local distributors. There was a wide variety of business represented among the companies in question, though the general types followed the national sponsors very closely. From an examination of the commercial sponsor lists of the Yankee Network and from conversation with the officials of that organization, the principal uses to which the network is put are as follows: (1) as a trial region for national distributors either introducing a new product or trying out broadcast advertising itself; (2) as a means of applying special pressure to the sale of the product in question in the New England area; (3) as a medium for the small regional manufacturer or distributor, who can take two or three stations at the start and enlarge his broadcast advertising effort as the number and territory covered by his outlets increase; and (4) as a medium for the established regional distributor such as a retail chain, wholesaler, or regional manufacturer. An examination of the Don Lee program sheets reveals the same general type of sponsor as found on the Yankee Network.

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[20] Bureau of Advertising, American Newspaper Publishers' Association.

CHAPTER VII

THE USE OF SPOT BROADCAST ADVERTISING

Though broadcast advertising originated over individual stations, its growth in that field was much slower than with respect to the utilization of national network facilities for that purpose. The individual station was hampered in securing broadcast advertising in a number of ways. After the first novelty of broadcasting had worn away and programs of higher entertainment standard were being developed to meet the demands of a more discriminating public, all except the most enterprising and financially strong stations in important metropolitan centers, such as New York and Chicago, found it impossible to develop local programs that could compete successfully with the productions of the networks. For this task neither the talent, managerial ability, nor the financial resources were available to the small local station. Consequently, those stations which could do so affiliated themselves with the networks, both for the programs they could secure and the revenue which was possible from broadcasting network commercial programs.

Revenue and program service were of equal importance in turning the stations toward the networks. Broadcast advertising was a new thing, and the local merchant or small manufacturer, usually more conservative than the national distributor by reason both of his ability and his proportionately smaller financial resources, was loath to experiment with the new medium. Rather, he preferred to wait until it had proved itself at someone else's expense. Moreover, the necessity of continuous effort week after week, as compared with the possibility of sporadic inserts on the part of the small local retailer in the community press, made broadcasting a more expensive medium as far as initial outlay was concerned. Finally, the larger and more important retailers, department stores especially, were convinced that the direct selling possible in the local newspapers was of greater value than the mere good-will effect, then believed to be the only result which could be obtained from the use of broadcasting; an opinion which was strengthened by the unfortunate experience of many department-store-owned stations in the early days.[1]

From the viewpoint of securing national advertising business the individual station was limited, as has been mentioned previously, by having little to offer the advertiser in most cases, and, in addition, by the fact that practically no means existed for contacting either the potential advertiser or his agency. Moreover, had the middleman structure, now used largely for that purpose, then existed, there still would have remained the problem of selling the agency and its client, neither of whom possessed the slightest experience in broadcast advertising, and who consequently leaned inordinately much upon network advice and assistance. Finally, the national advertiser was more interested in securing facilities which would cover the entire country than in reaching localized districts; and neither he nor the agency had yet learned the possibility of shaping their broadcasting effort to fit the configuration of their market by the use of individual stations, or even, to any great extent at that time, by the careful purchase of network facilities. For these reasons, then, individual station business grew slowly.

By 1929 there were indications that both networks and individual stations eventually would constitute important factors in the broadcast advertising structure of the country. Some of the larger metropolitan stations were developing, over and above their network programs and business, a distinct personality which gave them widespread circulation in the area covered by their transmitter; and, since that coverage lay primarily in the great buying centers of the nation, it made these stations worthwhile media for both the important local retailers and manufacturers, and the national advertisers as well. Stations of this type were to be found in WOR, Newark, WLW, Cincinnati, WMAQ, Chicago, and WNAC, Boston. In addition to this development, which after all, was highly restricted in extent, enterprising advertisers were discovering that splendid results could be attained by sponsoring time, weather, news, and market reports over large groups of stations scattered throughout the country. Such programs did not necessitate the use of network facilities. A standard form of announcement was prepared, into which the time, weather, market, or news report could be inserted, and time was contracted for directly from the station in question, the station's own announcer reading the advertisement, and its own staff securing the necessary information for the program. Thus programs such as the Longine correct time came into being. Moreover, the local station had conceived the idea some years earlier, and now began to push with vigor the broadcasting of programs at certain hours of the day wherein the announcements of local retailers were permitted to be read between numbers by the staff announcer. These were sold at a nominal charge in most instances, and corresponded to the classified advertisements in a newspaper.

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[1] It seems that this failure of many department store stations was due largely to poor and unenterprising management, as well as to an ignorance and lack of appreciation on the part of the higher executives as to the potential function of the station in merchandising the store. This will be discussed in somewhat greater detail when local broadcast advertising is analyzed.

Thus a number of new avenues of potential use were being opened to both the local and national advertiser as far as the individual station was concerned. The larger metropolitan stations were developing personalities which made them important media to local and national advertisers in the principal buying centers. The practice of so-called spot announcements, by which name the trade came to designate both the national announcements sponsored over a large number of stations and those of the small local retailer, inserted, in all probability, between phonograph records, was growing. Moreover, individual station technique in many cases was achieving a level where an increasing number of them were capable of producing satisfactory programs in their own studios; and though the total was small, the trend was significant.

By 1929, also, the more enterprising advertising agencies began to build up, by experience, a sufficient knowledge of broadcasting to be able to visualize a wider extension of its possibilities as a medium than merely a network proposition. It is probable that these potentialities were addressed to them largely by necessity. During that period, especially, network requirements, as to contracts and the number of stations taken, were especially rigid. Moreover, broadcasting was the new vogue in advertising, and the small client, unable to meet the financial demands of national network broadcasting, was attempting to find some means of getting on the air. For him, the "spotting" of time or other announcements over the territory wherein his principal market was located, or the sponsorship of a locally produced program over one or two stations in the leading cities of that territory, constituted a partial solution of the problem. Finally, the agency began to discover that important local markets sometimes remained out of the range of network influence, so that other means were necessary to reach the listeners in this area. Again the possibility of "spotting" a special program in this section presented itself.

In response to the demand for this type of facility, a new middleman structure arose, designed to furnish a point of contact between the agency, which for the most part knew absolutely nothing about the station, and the station itself, which possessed no means of contacting the agency, situated as was the latter either in Chicago or New York, thousands of miles from Brownsville, Texas; or Kalamazoo, Michigan. Thus there came into existence the time broker, and from him, in turn, developed both the spot specialist of the Scott Howe Bowen type and the station representative.

In this manner the gap between the station and the agency was bridged, and a means was provided for securing the new "spot" business, as it came to be called.

The final and most important addition to the structure of spot broadcasting, and the development of the individual station broadcast advertising business, came in the form of the electrical transcription, a type of program reproduced from records made especially for broadcasting purposes. This type made its début in 1929. This provided the advertiser with a means whereby he could produce a program in one place, give it permanent form on records, and broadcast it over any station he pleased, at any time, irrespective of when it was broadcast on some other station, and without the stations in question being linked together by telephone wires into a network. This made it possible to broadcast over groups of stations either greater or less in number than the average network, and to concentrate the broadcast advertising effort in the specific areas which comprised the manufacturer's potential market.

Thus by the following year, 1930, the necessary structure and practice had developed in the field of broadcast advertising to give the individual station two important sources of business, over and above that secured by a network affiliate from acting as an outlet for the network's own commercial programs. The first of these was national spot business, as it was known in broadcasting circles, comprising business placed by national or regional manufacturers or distributors over an individual station either directly or through their local retail representatives.[2] The second was an increasing volume of business being placed by local retailers and small manufacturers such as bakeries and similar concerns broadcasting in their own interest. Since spot broadcasting[3] was seldom carried on over merely one station, it possessed the added characteristic that it almost invariably involved the broadcasting of a program over a number of stations, with the program transmitted from the studio of each station rather than emanating from a central or key station connected with the other broadcasting outlets in the group by means of telephone circuits. The program itself might be either a spot announcement, a so-called "live talent" program, or an electrical transcription.

By 1931 the total of these two forms of individual station business had grown to an estimated sum of $32,493,464.52, comprising 46.4 per cent of the broadcast advertising expenditures for that year. In point of commercial hours broadcast for all forms of advertising over the radio, individual station programs comprised 78.13 per cent of the total commercially sponsored hours presented during the second week of November of the year in question. With regard to the total individual station business, it is impossible to secure any data regarding the probable proportion of national spot business, and of broadcast advertising carried on by local sponsors. Those conversant with the field seem to agree, however, that national spot business is from one-quarter to one-third of the total individual station revenue derived from other than network sources.[4] That there has been a steady growth of this type of business seems to be indicated by the fact that of 75 stations either interviewed or answering a questionnaire regarding broadcast advertising trends sent them by the writer,[5] 68 per cent reported a steady growth in revenue derived from national advertisers spotting programs over their respective stations during the past several years. Likewise, there is no information existing as to how much of the spot business is comprised of time and other announcements, electrical transcription programs, or live talent broadcasts. The trend regarding the relative importance of these three forms, however, is fairly clear cut. Whereas announcements constituted by far the great preponderance of spot business in 1929, with live talent programs a very poor second, the emphasis has shifted, so that today the electrically transcribed program is the most important part of the spot business, with announcements a fairly strong second, and live talent ranking a rather poor third in spite of its very decided relative growth during the past year.[6]

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[2] This division of business was recommended as a basis for station rates by the Commercial Committee of the National Association of Broadcasters at their Ninth Annual Convention, October 26–28, 1931, in recommending the application of "local" and "general" rates to the two types of business, as is the practice of the American Newspaper Publishers Association. It seems to be followed to an increasing extent, though by no means completely. The word "spot" is trade terminology and not part of the resolution (*Proceedings*, p. 34).

[3] "Spot" announcements and "spot" broadcasting are a trade ambiguity.

With the foregoing brief discussion as a general background with respect to the development of broadcast advertising over individual stations, it becomes possible to analyze in greater detail the various elements comprising this type of broadcasting endeavor. Since spot broadcasting is so closely related to the use of national and regional networks as advertising media, it will be considered first; and since electrical transcriptions, in turn, constitute the most important form of spot broadcasting, they likewise will receive precedence in discussion.

In so far as the electrical transcription business is so new, and so little understood, it will be well to discuss its major technical aspects before entering upon any analysis regarding the trend as to its use.

Recorded programs are not new to broadcasting, which, indeed, is part of the difficulty involved in securing public appreciation of the nature of the modern electrical transcription. Most of the first programs broadcast were phonograph records, while, following the brief period when volunteer talent filled the anterooms of broadcasting stations, many of the smaller stations were obliged to return to this form of entertainment to a larger degree than probably was desirable. With the elevation of the production of broadcasting programs to a definitely professional level, and the general growth of technical knowledge with regard to the recording of programs—developed jointly through broadcasting, the talking picture, and the orthophonic victrola—there was developed a body of knowledge which made possible the production and recording of programs, especially for broadcasting purposes, far superior to the old-fashioned victrola record; and, which in the case of a good transcription, correctly broadcast, hardly could be discerned from a live talent program except by the most expert ear. This form of program production, introduced in 1929, was seized upon by advertisers as a new and important aid to spot broadcasting.

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[4] Philip G. Loucks in interview.

[5] The question asked was "To what extent, if any, have national advertisers been spotting programs over your station in recent years? Has this been on the increase or not? Has it been largely transcription or live talent business?" For complete questionnaire see Appendix C, of which this is Question 2 under questions as to "Who Are the Sponsors of Radio Advertising over Your Station?" It was sent to 165 stations mentioned in the Introduction. Stations interviewed by the writer personally were asked the same question.

[6] Howard S. Meighan in interview.

Technically, an electrically transcribed program differs much less from a live talent broadcast than is commonly supposed. The chief difference is that the one is recorded and then translated into electrical energy and broadcast at a later date, while the live talent program is picked up by the microphone in the studio, turned into electrical impulses, and broadcast immediately. This becomes more clear when the process whereby electrical transcriptions are made is examined in detail, and their characteristics analyzed.

Assuming that a program sponsor or his advertising agency desires to have a number of electrical transcriptions made for use in broadcast advertising, the procedure involved in creating the actual program which they desire will be as follows:[7] The recording of the program will take place in a studio especially constructed for that purpose and acoustically adapted to the production of transcriptions. Two waxes are set on slow speed turntables, similar in principle to that of the ordinary household victrola, the turntables carefully synchronized so as both to revolve at the same rate. Turntables revolving either at the speed of 78 revolutions per minute, the rate of the ordinary victrola (used for shorter programs primarily), or at 33⅓ revolutions per minute are employed, the trend being toward the latter type of transcription. These waxes record the program simultaneously so that two original records of the performance are later available for use. Following the rehearsals of the program, and when everything is in readiness for recording it, the motor running the turntables, carefully adjusted so as to insure the even revolution of the waxes, is turned on, and the signal is given to begin.

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[7] Many of the details in the description of making an electrically transcribed program appearing herein have been taken from "Some Practical Facts about Transcription," by J. R. Poppele, chief engineer, Station WOR, published in *Broadcasting*, October 15, 1932. These have been supplemented where necessary with additional data.

The theme song is played, the opening announcement read, and the program proceeds upon its normal course. The microphones pick up the sound, which is turned into electrical impulses, amplified, and recorded on the waxes. During the recording, one technician watches the volume and the mixing of the sounds picked up by the various microphones used for the different parts of the program, in the same manner as this occurs in the control booth of a broadcasting station. A second technician attends to the amplification, which corresponds to the broadcasting of the program over the station, and the third supervises the room where the waxes themselves are cut.

The cutting of the waxes differs greatly from the days of mechanical reproduction, when the stylus vibrated directly from the sound impulses, and when, as a result, it was either too strongly affected by great volume or too little by soft notes, and missed the higher and lower tones of the scale completely. In the modern transcription, the stylus is electrically impelled by means of the process described above, and thus insures better recording of both tonal range and volume. Evenness of reproduction likewise is secured by the careful regulation of the motor driving the turntables, to an extent not possible under previous methods.

There are two ways of cutting the waxes: the "lateral" and the "vertical" or "hill-and-dale" method. In the case of the former the stylus vibrates from side to side, cutting laterally, and making its imprint on the side walls of the groove. This was the method employed in the phonograph recordings of earlier years, and, until recently, in the great majority of electrically transcribed programs. Today, however, it is being replaced to a considerable degree by the vertically cut recording, which seems to be superior from the viewpoint of both the tonal range and volume that can be secured.

This, then, is the process involved in cutting the waxes. If the program is longer than ten or fifteen minutes, a second set of waxes will be made carrying the latter portion of the program, the shift being timed carefully so as to insure a perfect dovetailing of the two transcriptions.

When the work of transcribing the program is completed, one wax is played back to the interested parties, comprising the transcription company executives, the agency representative, and the program sponsor's own representatives, and the program is edited. The other wax, however, is not played, but goes into an electrical bath where it is plated and a negative made. This negative, which is called the "master," is then used in making two test pressings, manufactured from an earth shellac substance which is heated to a consistency similar to kneaded dough, and following which it is pressed under terrific pressure, still further heated, and baked. These test pressings are then played and approved.

Following the approval of the test pressings, another imprint is made from the master record. This imprint is called the "mother," and from it, in turn, is produced again by electroplating the "stamper" or negative from which the recordings used in broadcasting finally are manufactured. In case any large number of disks are to be produced, more than one stamper is made, the better sound-recording studios definitely limiting the number of pressings made from a given stamper. The original "master" by now has been put carefully away, as an original record of the program.

The transcription is now ready to be sent to the various stations for broadcasting. When this occurs the record is placed on a turntable similar to the one used in recording the program, and is played. However, no microphone picks up the sound waves. Rather, the transcription is immediately translated into the form of electrical impulses, amplified, and broadcast, thus insuring a faithful reproduction of what originally was recorded. In the playing of the transcription, however, the station must exercise considerable care if the best results are to be attained. One of the great difficulties in the early days of electrical transcriptions was that station managers failed to realize the necessity of careful attention to detail in the broadcasting of recorded programs. To them it was just one more record, no different from the old victrola record. Often the transcriptions were played in the wrong order, and even more often without rehearsal or preliminary inspection, in rooms of any temperature and under similarly unfavorable conditions. Today the better station will first rehearse the transcription to make certain that the disk is all right, and the grooves smooth. It will also see to it that no dust or dirt is on the record, that the turntables are operating at the correct speed—which is done in part by testing the notes against those of a piano—that everything is in order for switching from one disk to the other, and that the room temperature is correct to eliminate the danger of contraction or expansion of the disk and consequent distortion of tone. When these conditions are observed, and when the original transcription has been made with equal care, it is impossible for any but a technician to distinguish the transcription from the live talent program.

The transcription itself, however, should be carefully distinguished from the so-called "dubbed" program, which is a transcription made either from another transcription or more likely from victrola records, and which is a decidedly inferior product. The manufacture and distribution of dubbed programs has been a constant source of annoyance to the reputable transcription companies, and has affected adversely the public acceptance of transcriptions as a whole.

Compared to the live talent program of a modern broadcasting station, the electrical transcription possesses the following characteristics. With regard to tonal range, the vertically cut transcription can reproduce from 30 to 10,000 cycles, equal to the best broadcast transmitter, and superior to many; likewise, far superior to the receiving ability of the average well-constructed modern receiving set with dynamic speaker.[8] The laterally cut 33⅓ r.p.m. transcription can reproduce tones ranging from 60 to 6,000 cycles. Compared to this the modern home phonograph can reproduce from 60 to 5,000 cycles; the average high-class telephone circuit used in network broadcasting, 50–8,000 cycles; the ordinary network circuit, 50–5,000 cycles; the average modern transmitter, 30–7,500 cycles; and the high-quality modern radio set, 50–5,500 cycles. The volume variation on the best transcriptions also is supposed to be equal to that on network programs.

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[8] *Radio Retailing*, August, 1931, p. 13.

As to the facilities existing for the broadcasting of electrically transcribed programs, they can be said to include practically all commercial stations of any importance other than the key outlets of the national network companies.[9] The installation of electrical transcription equipment began in 1929 with WOR, Newark, being one of the first stations to announce formally that it was experimenting with this type of business. By May, 1931, approximately 120 stations, or about one-fifth of the stations of the country, were equipped to handle transcription programs.[10] It is especially interesting to note that this included 65 per cent of the stations of 5,000 or more watts in power.

The impossibility of securing conclusive data regarding the amount spent by advertisers for spot broadcasting, and for electrically transcribed programs in particular, has been mentioned previously during the course of this discussion. However, from the experience of station managers and others versed in the transcription business as revealed by questionnaire studies, and by similar means, it is possible to piece together a fairly accurate picture of the trends which have occurred in the field.

Electrical transcriptions first began to be used for advertising purposes to any important degree during the latter half of 1929. During the following year their use increased rapidly, and seemed to reach its peak in 1931. In the course of that season seventy-five commercially sponsored electrical transcription programs were broadcast, representing an increase of 175 per cent over the number of similar programs on the air on January 1, 1930.[11] During the past year the trend, as with all broadcasting, has been more or less uncertain. There is reason to believe that, especially during the latter half of the year, a decline in the electrical transcription business set in, due, in turn, to a number of reasons. Poor management of some of the concerns operating in the field and the eventual failure of one of the leading companies in the spring of 1932 were partly contributive to this result. Cut-throat competition by small fly-by-night recorders assisted in the same direction. The most important reason, however, undoubtedly was the general adverse business situation, affecting with especial severity, as it did, the advertising appropriations of the smaller companies, which companies in turn were the principal users of electrical transcriptions.

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[9] Howard S. Meighan in interview.

[10] *Present and Impending Applications to Education of Radio and Allied Arts*, National Advisory Council on Radio in Education, p. 42.

[11] *New York Times*, Radio Section, January 24, 1932.

These general conclusions find confirmation in the experience of the managers of fifty-eight stations scattered throughout the country and representing all classes of power and facilities, as revealed in a questionnaire study made in October, 1932, the answers being as of November of that year.[12] In response to a question as to whether there had been an increase or decrease in their electrical transcription business during the preceding twelve months period, 51.7 per cent stations reported an increase, and 42.8 per cent a decrease.[13] The remaining 5.5 per cent reported no change in the volume of business of this type during the period. Most of the decreases were reported to have taken place during the spring of 1932. It is interesting to compare these results with the replies received from sixty-four stations to a similar question sent out by one investigator in March of the same year.[14] In response to the same question, 64 per cent of the stations reported a growth in electrical transcription business, 49 per cent stating that the rate of increase over the period in question had been rapid. A decrease in the volume of business of this type was reported by 18 per cent of the stations, another 18 per cent stating that there had been no appreciable change.

Much more interesting than the general trend is that evidenced with regard to stations of various classes of power. Thus, out of thirteen small stations ranging in power from 100 to 250 watts, all but one of which were non-chain stations, eleven reported increasing revenue from electrically transcribed broadcast advertising programs, and only two stated that their volume of business from this source had declined. Estimated percentages of increase ranged from 10 per cent to 80 per cent for individual stations, with both the median and modal figure being a 20 per cent gain. On the other hand, with regard to thirty stations ranging from 500 to 1000 watts in power, eleven reported increased business in electrical transcriptions, eighteen reported declining business of this type, while one reported no change in volume of revenue from this source. The trend is similarly confused with respect to stations of 5,000 watts and more in power, where seven reported increases, five decreases, and three no change. In the case of the 500–1,000-watt stations increases ranged from 10 per cent to 100 per cent, centering about a mode and median of 20 per cent; while decreases ranged from 10 per cent to 70 per cent with a median of 25 per cent and a mode of 15 per cent. In the high-powered stations the range of increase likewise was from 10 per cent to 100 per cent and the range of decrease was from 20 per cent to 75 per cent, the totals being too small to make possible the striking of averages possessing even the slightest significance.

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[12] The study referred to is the one mentioned in the Introduction. The list of stations answering the questionnaire are found in the forepart of Appendix A, and the questions in the section of Appendix C entitled "Questions Regarding Electrical Transcriptions." The 58 stations replying constitute an approximate 10 per cent sample of broadcasters equipped to handle this type of business. The results presented above were confirmed in general by the writer's interviews with station executives, not included in the present tabulation.

[13] The question was: Has there been an increase or decrease in your electrical transcription business during the past year? Approximately how much?

[14] Senior Research entitled "The Potentialities of Electrically Transcribed Radio Broadcasting," by Barry Z. Golden, in *Broadcasting*, September 1, 1932.

Though the small number of stations in any one class admittedly makes the preceding data indicative of only the barest trends, and even here open to certain question, the unanimity with respect to the increase in the electrical transcription business of the smaller stations is of especial interest. A number of factors might explain such a trend, among them a shift in the type of program sponsor to smaller retailers and manufacturers; a seeking on the part of the sponsor of the cheapest station over which to broadcast, in terms of cost versus circulation, though not necessarily the station giving the maximum circulation; and finally, the possibility that the electrical transcription sponsor has not been able to get the desired larger stations at the appropriate time. Though any conclusions in this field are conjectures, it seems that the two latter reasons probably explain the situation. The former is quite plausible, while the difficulty of securing larger stations should have been increased during most of the period in question by the lack of enthusiasm, if not always positive discouragement, with which the National Broadcasting Company greeted the broadcasting of electrically transcribed programs over any stations wholly or partially controlled by it, and by a similar result emanating from the Columbia Broadcasting System's control of time on its various member stations.[15] That it was not a case of a shift in type of sponsor will be seen in the following paragraphs. Other than the trend toward increased business on the part of some of the smaller stations, which may or may not have survived the winter, the experience of stations of varying power indicates the same situation as depicted with regard to the field in general.

The trend in the type of concerns sponsoring electrically transcribed programs, as revealed by the replies of the station managers to the question as to whether this business centered principally in local concerns, national advertisers spotting programs on local stations of their own accord, or local dealers advertising national products, also is of interest.[16] In this instance 72.9 per cent of the station managers reported their business to be primarily national accounts placed directly, 8.3 per cent mentioned local sponsorship as most important, while 12.5 per cent stated that their electrical transcription accounts were mostly those of local dealers advertising nationally distributed products. The last-mentioned type of endeavor is usually a co-operative undertaking where the local dealer may stand 50 per cent of the cost, the wholesaler 25 per cent, and the manufacturer 25 per cent, or may purchase the transcriptions from the manufacturer, in addition paying for the broadcasting time itself. There probably are other types of arrangements lying between these two extremes. It is interesting to note in this respect that 20 per cent of the broadcasting stations reporting that their business was made up principally of national advertisers spotting their programs direct also mentioned a trend toward an increasing proportion of transcriptions being placed through the local distributors, either in an attempt to get the local rate for station time or else to secure dealer co-operation in financing the broadcasts. The latter reason seemed the more important.

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[15] *Variety*, April 5, 1932, reports a trend toward the small station, giving as the reason the network domination of affiliated stations.

[16] The question was: Has commercial sponsorship of electrical transcription programs been principally by local concerns, national advertisers spotting programs on local stations of their own accord, or local dealers advertising national products? Has there been any trend in one direction or another in the past year or so? If so what?

An examination of the types of industries represented among the sponsors of electrically transcribed programs does not reveal any marked difference from those employing national networks as advertising media. The principal difference lies in the size of the concern, or of the market to be covered. It is quite true that at times some of the largest concerns in the country have sponsored ambitious programs of electrical transcriptions. Examples of this are the "Chevrolet Chronicles" which made so great a stir in 1931, and the Beechnut Packing Company's "Chandu the Magician" which likewise has experienced almost phenomenal success. Efforts of this type, however, are the exceptions rather than the rule. Most of the large companies employ network advertising, or, if they do use electrical transcriptions, make these subsidiary to their main network effort. Thus for a number of years Philco has used transcriptions either to reach outlying districts, which could not be covered by the regular network broadcasts, or else as a means of special pressure over short periods of time, as in the case of a series of broadcasts over 123 stations for five nights during the week of August 15, 1932, for the purpose of introducing its new model and of conducting a word-building contest which was part of the general sales promotion plan.[17]

More important to the electrical transcription business is the smaller national or regional manufacturer or distributor with too limited resources or too restricted a market to make possible network broadcasting, but who is still a logical prospect for spot advertising. Though no very concrete data are available on this point, it seems, both from an examination of the program sheets of numerous stations and from conversations with executives in the field, that it is this type of concern which constitutes the backbone of the electrically transcribed broadcast advertising program business.

The purposes for which electrical transcriptions are used tend to fall into two general classes. In the majority of cases it is employed instead of a network. Thus out of twenty-seven transcription sponsors who were asked whether they used their spot broadcasting instead of, or supplementary to, network broadcasting, 89 per cent replied that they resorted exclusively to recorded programs.[18] In such cases electrical transcriptions are used in favor of networks for a number of reasons: (1) as stated before, the company's resources may make network broadcasting too expensive an undertaking; (2) because the market for the product or brand in question is concentrated in areas which either cannot be reached by networks or with respect to which the utilization of network facilities would entail too much waste circulation; (3) because of certain seasonal aspects regarding the product advertised which make it advisable to start broadcasting in one part of the country at an earlier date or different season from another, as in the case of tire chains or brake linings; (4) in order to overcome time differences, especially with respect to broadcasts such as children's programs where an hour's difference one way or the other is of utmost consequence;[19] and (5) in order to secure dealer assistance in the financing of the broadcasts, a reason which is equally operative with regard to the supplementary use of electrical transcriptions, but which cannot be relied upon in the case of exclusive use of national networks.

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[17] *Broadcast Advertising*, September, 1932, p. 18.

With regard to the 11 per cent of the concerns utilizing electrical transcriptions as supplements to networks, only two reasons were stated: (1) that the use of electrical transcriptions was cheaper in some cases, as a means of reaching certain outlying areas, than the cost of taking the station offered by the network; and (2) to reach certain dead spots in network coverage. It is believed that a third reason, that of using electrical transcriptions as means of special pressure advertising in given areas, will increase. Another factor which may facilitate the increased supplementary use of electrical transcriptions is that now both network companies allow the recording of network broadcasts for additional spotting by electrical transcription direct from their own studios. In the case of the National Broadcasting Company, it is reported, however, that this is allowed only if the recording is done by the RCA Victor Company. On the other hand, a reported tendency of the network companies to make concessions as to the number of stations which must be taken by the broadcast advertiser is said by some executives in the field to be the greatest difficulty that electrically transcribed programs face today. However, it is impossible to confirm this with any degree of certainty.

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[18] Barry Golden, *op. cit.*, p. 28.

[19] In a broadcast such as "Just Willie," sponsored by Keds and designed for young boys of about twelve to fourteen years of age, this matter would be of great importance. In the network broadcast in this case, 7:30 was selected as the hour, since it was believed that either earlier or later would miss the market the sponsor wished to reach. Thus 4:30 on the Coast would have been useless. Programs such as "Skippy" face a similar problem. It is possible, also, that programs after eight o'clock at night are much less affected than those at earlier hours.

In addition to the general business situation and the type of concern sponsoring electrically transcribed programs, there is another factor of importance in determining the future of the electrical transcription in the broadcasting field. This is the degree to which programs of this sort have won public acceptance. There is no doubt that, at the outset, the public attitude toward electrical transcriptions was unfavorable. The phonograph broadcasts of the early days of radio, the poor handling of the transcribed programs by stations, the inexpert production of transcriptions, and the prevalence of dubbed recordings—all assisted in this direction. Public ignorance of what was meant by the term electrical transcription constituted another difficulty which had to be overcome. To the average mind, this suggested something inferior, "canned" music of a new variety, and, therefore, not as desirable as a first-class live talent broadcast.

Gradually the public opinion shifted from one of distaste to one of nominal acceptance. With the rise of better transcriptions, they began to be preferred to live talent broadcasts of inferior quality, especially over the smaller stations. It is doubtful if the electrical transcription ever will meet with the same public acceptance as the live talent program, since, with respect to the former, the thrill of timeliness is missing. This is still and probably always will be an important factor in radio. However, the fact that "Chandu the Magician," an electrically transcribed program, ranked first in audience mail over station WOR, Newark, during the early fall of 1932, with an average of 8,000 letters a week,[20] and that it achieved sufficiently widespread popularity throughout the entire country to warrant its production in motion-picture form is ample proof that a well-done recording finds public acceptance.

The general conclusions in this respect are confirmed by the testimony of fifty station managers who answered questions concerning their experience in the matter of public reaction to electrical transcriptions: whether the public was as favorable to them as to live talent broadcasts, and what changes had taken place in the public viewpoint in this field during the past year.[21] Of the entire group 84 per cent responded that the public seemed to accept electrical transcriptions favorably, though 40 per cent of the group were specifically of the opinion that programs of this sort ranked decidedly second in public preference to good live talent broadcasts. It is interesting to note that it was the opinion of 50 per cent of the group that the public attitude had improved over the previous year. Practically all of these gave the improved quality of the transcriptions as the principal reason for the change. Only 10 per cent noted any perceptible public disfavor, as far as recorded programs were concerned, while several small stations were frank in saying that they were preferred to the live talent programs which they themselves could offer. The manager of one small far-western station wrote as follows: "Our experience has shown that electrical transcription programs are rating better than the average live talent programs. There has been a decided increase in favor during the past year. The big drawback is in an adequate supply of electrical transcriptions." In so far as the supply of electrically transcribed programs of high quality which can be bought for local sponsorship or sustaining use is still rather small, this station undoubtedly is facing a problem in securing the supply which it desires. It would be interesting to know how many other small stations are similarly situated.

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[20] *Broadcast Advertising*, October, 1932, p. 31.

To what extent does the electrical transcription compete with the network? This is a question which in 1930 and 1931 caused no little concern in network circles, but since then seems to have faded into the background. Though it is stated that it never officially took a position on the question, the attitude of the National Broadcasting Company was decidedly antagonistic to transcriptions when they first appeared on the market. In a public address during the winter of 1930,[22] M. H. Aylesworth, president of the National Broadcasting Company, asserted in no uncertain terms that "If radio is to become a self-winding phonograph, it would be better to discard radio entirely and go back to phonographs and records, than to waste the all too few wave lengths available for living speakers."

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[21] The question was: What in your experience is the public reaction to electrical transcriptions? Is it as favorable as to live talent programs? Has there been any change in its reaction over the past year or so? If so what? See Appendix C for full list of questions in this field.

[22] *Broadcast Advertising*, December, 1930, p. 7.

Later, concessions seem to have been made in this attitude. In May, 1932, when the National Broadcasting Company assumed control of station WMAQ, Chicago, the electrical transcription business running on that station was retained. In August of that year "Philco Frolickers," an electrically transcribed program, was booked for a number of NBC Pacific Coast outlets. Moreover, it was reported in September that the S. S. Kresge Company had arranged for a series of thirteen electrical transcription broadcasts over station WGY, Schenectady.[23] Finally, there has come the announcement by the RCA Victor Company of a new transmitter turntable, which, the advertisement states, was "developed for the National Broadcasting Company" and was "ordered by them for all the stations which they operate."[24] It seems therefore that this network, at least, has accepted the electrical transcription as an important and permanent part of the broadcast advertising structure. The Columbia Broadcasting System has always been noncommittal on the subject of transcriptions, and its attitude therefore has not presented the same problem as has that of the other network.

The rise of the electrically transcribed program also raised important problems for the Federal Radio Commission in the field of program regulation. The new form of program production certainly was not the usual phonograph record; neither was it a live talent program. The question therefore was as to what it should be called, and how it should be announced over the air. Therefore, in its *Third Annual Report* the Commission went to considerable lengths to say that, though some announcement should be made to the extent that the program broadcast was not a live talent production, the Commission did not "feel called upon to provide stations with an exact form of announcement." It was stated that it realized that great ingenuity was being exercised in the preparation of these programs, and placed the burden squarely upon the individual station "of so announcing such programs that no one can possibly be deceived or led to think that they represent an actual rendition by present artists."[25] Shortly afterward the commissioners came to believe that a set form of announcement was necessary after all. Accordingly, General Order 78 was promulgated, requiring the announcement that "This program is an electrical transcription made exclusively for broadcast purposes."[26] In the early part of 1932 this requirement was made less severe by allowing it to be announced in other than the stereotyped form, which, during the intervening period, had become extremely unpleasant to hear over the radio.[27] However, in June of that year, the order again was made more severe and Rule 176 of the Commission was revised to read "The exact form of announcement is not prescribed, but the language shall be clear and in terms commonly used and understood."[28]

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[23] *Variety*, September 6, 1932, p. 44.

[24] Advertisement appearing on the back cover of *Broadcasting*, January 15, 1933.

Because of their importance in the total field of spot broadcasting, electrical transcriptions have been discussed at some length. However, there are two other forms of spot broadcasting: the so-called spot announcement and the live talent spot program. Though the spot announcement has declined greatly in relative importance in the field of spot broadcast advertising, it nevertheless still constitutes an important part of the total business placed over individual stations by national or regional distributors. Its use has been confined primarily to the distributors of convenience goods such as Rem and Pertussin—both of whom use weather reports—several brands of radio glycerine and other anti-freezes, which likewise sponsor weather and temperature reports; or to articles, such as watches, where there is a natural tie-in between the product and the subject matter of the announcement. One of the most successful users of this latter form of spot announcement has been the makers of Bulova watches. Another use of spot announcements is where a new model of a specialty good such as a radio or automobile is being introduced, and where added pressure is being applied either throughout the country as a whole or in certain special territories. Likewise, spot announcements are employed by a number of companies to whom a talent program of any sort would constitute too great an expense. This is more true, however, of the local spot announcement than of the nationally sponsored one discussed here.

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[25] *Third Annual Report of the Federal Radio Commission* (1929), p. 18.

[26] *Fourth Annual Report of the Federal Radio Commission* (1930), p. 12.

[27] *National Association of Broadcasters News Bulletin*, April 23, 1932, p. 3.

[28] *Broadcasting*, June 1, 1932, p. 12.

Spot broadcasting by means of live talent programs is a comparatively new development. As to its period of origin, however, it antedates the electrical transcription, though it did not grow to any extent until the latter half of 1931 and thereafter. Since then there has been a marked trend in this direction, so that, though live talent spot business still constitutes a negligible proportion of total spot broadcasting, its relative development has been rapid. This growth has been confined largely, though not exclusively, to the more powerful and better-equipped stations such as WLW, Cincinnati; WTAM, Cleveland; WBT, Charlotte; and WOR, Newark. Stations WJR, Detroit, and WCAU, Philadelphia, also report increased inquiries in this direction, while a large number of the radio executives of advertising agencies have mentioned local station programs available for sponsorship as being one of the items of information desired from the individual broadcasters soliciting agency business. This information probably is of value to the agency as a source not only of potential spot talent but of numbers which can be bought cheaply and built into programs of national proportions.

The users of live talent spot broadcasting are primarily the following groups: (1) national advertisers who wish to supplement their network programs in a weak city or territory, or to put on additional pressure in a given district; (2) regional companies distributing their product largely in a few metropolitan centers or restricted to limited areas which can be covered with a few high-powered stations;[29] and (3) national advertisers instituting a test campaign of the effectiveness of broadcasting as an advertising medium, of a particular type of program, or of a new product or package which they wish later to distribute nationally. The programs sponsored are usually local ones which have achieved success over the station and which have already won an audience for themselves. A recent example of this type of program is a series of live talent spot programs broadcast by the manufacturers of Pebeco Toothpaste over a group of ten stations, the program being different in the case of each station.

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[29] Thus the more important markets in Ohio might be covered, for instance, by WLW, Cincinnati, and WTAM, Cleveland, both 50,000-watt stations.

It is quite probably true that, in spite of its recent rapid growth, live talent spot broadcasting will continue to be highly restricted in volume for some time to come. In the first place, the number of stations possessing the requisite facilities for handling such programs is still limited—not always, however, to broadcasters with high-wattage transmitters. Moreover, the cost of a series of live talent programs over any large number of stations tends to mount rapidly because of the necessarily heavy total expenditures for talent. Finally, the cost of production and servicing such a program series tends to be high from the agency viewpoint, while the details of building a series of live talent broadcasts are exceptionally trying in many instances. In spite of these limitations and a small total volume, live talent spot programs should continue to increase in importance, especially as they relate to broadcast advertising in metropolitan centers where program, station, and agency facilities are at their best.

The final question which remains is as to the future of spot broadcasting as a whole. Because of the many conflicting trends in broadcast advertising, a conclusive answer is impossible. In the long run, spot broadcasting *should* show continued growth, since it is doubtful whether it has been employed as yet by all the concerns who profitably could use it.

One interesting development in the spot broadcasting field has been the formation of a special spot broadcasting service by both national network companies for the purpose of soliciting this type of business for the stations owned or financially controlled by them. In September, 1932, the opening of the National Broadcasting Company Local Service Bureau was announced. This bureau was designed to represent seventeen stations in the spot broadcasting field, including those owned or controlled by NBC, the Westinghouse owned stations, and WGY, Schenectady, owned by the General Electric Company. In January of the following year the Columbia Broadcasting System announced the establishment of Radio Sales, Inc.,[30] to fill a similar capacity with respect to the Columbia owned and controlled stations. The formation of these subsidiaries, the solicitation of electrical transcription business on National Broadcasting Company owned and controlled stations, and the rumored increase in split-network concessions by the network companies—all seem to indicate a recognition of the importance of spot broadcasting on the part of these organizations, especially in view of the declining rate of increase in the growth of broadcast advertising, as a whole, experienced during the 1932 season. This concern on the part of the network is further accentuated by the fact that they seem to have found it necessary to secure spot business for their owned and controlled outlets, if these stations are to be made to pay. It will be especially interesting to see what effect this development will have upon the future structure of both network and spot broadcasting.

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[30] *Broadcasting*, January 15, 1933, p. 6.

CHAPTER VIII

MIDDLEMEN AVAILABLE FOR SPOT BROADCASTING[1]

The rise of spot broadcasting brought with it some new and perplexing problems for the company employing this form of broadcast advertising as well as for the agency servicing its account. With the purchase of time from a large number of individual stations rather than on the basis of a complete network group, and with the ultimate broadcasting of the program on the same basis, questions arose regarding procedure and available structure which, prior to that time, had not occurred to anyone. The problem arose as to which station to use in a given territory. Was that station available at the time and for the period desired, and was its rate reasonable for the listener circulation which it commanded? Where and how could information be secured regarding available stations and hours on individual stations, and how could the great number of these be contacted most efficiently? Where could talent be secured, now that complete reliance no longer could be placed upon the network program departments? Moreover, what type of program should be produced and who should be secured to produce it? The solution of these, and similar trying problems, necessitated the development of an entirely different structure from that employed in national network broadcasting. The present discussion will, therefore, center about the nature and operation of this structure.

In addition to the individual stations, previously analyzed in considerable detail, the spot broadcasting structure of today includes the following elements: (1) the time broker; (2) the electrical transcription company; (3) the so-called spot specialist; and (4) the special station representative. All of these agencies exist to a greater or less degree, for the purpose of producing the spot program itself and of acting as a contact between the station and the program sponsor or advertising agency. The structure itself is so new, and the line of demarcation between the various elements so vague, that it is impossible to attribute a special function to any one of the organizations mentioned above, except to state that, for the most part, the middleman function of assisting in the smooth flow of broadcast advertising business from agency to station is the most important phase of their activity.

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[1] Philip G. Loucks, managing director of the National Association of Broadcasters, Fred W. Gamble, executive secretary of the American Association of Advertising Agencies, Howard S. Meighan, of Scott Howe Bowen, Inc., and William Rambeau, special station representative, have helped materially in securing the information necessary for the present chapter.

Because of this confused situation, the best approach to an investigation of the middlemen available for spot broadcasting will be an historical one, wherein each agency will be treated in the order in which it developed. Since the time broker was the first spot middleman on the field, his service will be the first to be considered.

The early time broker arose out of the dual need of the agency to secure information and possess a point of contact with the various stations scattered throughout the country, and of the stations to have a means whereby they, in turn, could contact the agency. Thus the time broker fulfilled two important rôles. It was he who secured station information for the agency regarding matters such as rates, station facilities, reputed listener circulation, available hours during the week, contract terms, and similar items. In the second place, he actively solicited business for individual stations from the agencies, and called the attention of the radio executives to the advantages that were to be derived from broadcasting over the stations which he represented. Moreover, because of the relative inexperience of the agencies in the production of broadcast advertising programs and in the servicing of the actual broadcasts of these programs, the time broker tended to assume additional functions. He became a source of program advice, a medium through whom talent could be secured, and at times almost usurped the entire function of an agency radio department. Sometimes he fulfilled these various duties in a most satisfactory manner, and many times he did not.

At that time the industry was in a raw and disorganized state. The multiplicity of functions which developed upon the time broker in the years of 1929 and 1930 opened his position to the possibility of serious abuses, which, indeed, did not take long in springing up. The agency itself was still so much of a newcomer in the field of broadcast advertising that very few, except the organizations which had pioneered in the radio field, knew when the broker was rendering satisfactory service and when he was not. Moreover, the question of broker and agency commissions soon arose and came to constitute one of the most difficult problems of commercial practice in the spot broadcasting field. Under the prevailing practice in this country, the advertising agency receives from the medium in which it places the advertising a commission of 15 per cent, which constitutes its principal revenue. In the case of spot broadcasting, both the agency and the time broker received a commission equaling this amount. This, of course, raised the cost of spot broadcast advertising to the agency's client, which the agency was forced to explain. Many agencies objected strenuously to this increased cost of doing business, especially when their own program and time-buying departments began to function satisfactorily and when costly experience revealed to them some of the inadequacies of the less reputable time brokers.

Had the industry been well organized and the function and activities of the time broker fairly standardized, it is doubtful whether much objection would have been raised to the double commission. The great source of difficulty lay in the fact that the conditions which made necessary the double commission also made possible serious abuses of the time broker's relationship to the station and agency. Business was very difficult to secure, especially for the small local station situated far from the more important centers of trade. Moreover, even with respect to the larger stations, the problem of a large overhead expense loomed continually before the manager's eyes. Consequently there often was a great temptation to secure business at any cost. The station card rates were observed only when special concessions were not necessary to secure the business. This situation still exists to a sufficient extent to imperil seriously the economic stability of the industry.

More important, however, was the fact that, because of the loose relations existing between the time broker and the station, the former at times charged any amount he could secure for the station time, and after paying the station the agreed amount, appropriated the remainder for his own use. In addition, 15 per cent was by no means the uniform time-broker commission. Indeed, it often mounted to 25 per cent and even 50 per cent. It should be noted in this respect that, in the small country newspaper field, a commission of 50 per cent to the newspaper representative is not uncommon, it is said. In some instances the broker even went so far as to attempt to charge a commission from both the agency and the station. This did not last long, though all types of split commission arrangements undoubtedly were tolerated.

Quantitatively, unethical practices of the type mentioned probably were indulged in by a very small portion of time brokers, but they served to make the time broker as a class extremely unpopular with all advertising agencies. In fact, they were not much more welcome among the progressive broadcasting stations. This feeling of dissatisfaction was further increased when the failure of several time brokers precipitated a serious credit problem. The agency had paid the time broker for the station facilities, but had contracted with the station itself for the time. The time broker now failed, and the station remained unpaid. There now arose the question as to who should be held liable for the time costs of the broadcasts and as to what constituted the specific financial responsibility of each party. The net result of this situation was that the agencies tended to place more and more spot business directly with stations, the larger stations soliciting directly where possible, though this was somewhat limited; so the business of the time broker declined considerably. This tendency was given additional impetus by the rise of some of the other elements in the spot broadcasting structure during the year 1931.

Though the time broker, as a class, deserved at least some of the criticism which was leveled at him during the years of 1930 and 1931, it is true that he fulfilled a definite and necessary function in the spot broadcasting field. He served to bring together the station and the agency. At the time he was in the ascendancy, neither were capable of doing this by themselves. Likewise, his lesser functions arose out of the necessity of their being delegated to someone. This does not excuse the lax practices which were indulged in by some of the brokers; though what has aptly been termed "chiseling" is always most prevalent where an industry is in a chaotic and formative period, as was spot broadcasting at that time. It should also be noted that, even though the time broker is no longer as important as he was in the early days of spot broadcasting, problems such as uniform station rates, with which he was largely blamed, still exist to a disquieting degree.

Following the time broker, who originated when spot broadcasting was confined almost exclusively to spot announcements and a very little live talent business, the next element to develop in the spot broadcasting structure was the electric transcription company. When this agency first came into any prominence in the early part of 1930, it confined its activities exclusively to the preparation and sale of electrically transcribed programs. It was soon discovered, however, that this was not enough. Unless some means existed for servicing the program, and for assisting the agency in contacting the stations over which the transcriptions were to be broadcast, there was little hope of developing the electrical transcription business to any great proportions. As a result, in the case of the World Broadcasting System, the problems of selling the transcription, contacting the agencies, servicing the accounts, developing station relations, and similar matters were relegated to the company proper, while a subsidiary, Sound Studios, was formed for the purpose of actually recording the programs. Thus the transcription company came to take over many of the functions of the time broker and to execute them with greater efficiency than usually had been the case on the part of the former middleman.

While the transcription company was usurping part of the field previously served by the time broker, and the agency itself was appropriating another segment, at least one of the pioneers in the field was developing a new type of integrated spot broadcast advertising service, which might be given the name of "spot specialist." The Scott Howe Bowen organization of today constitutes an interesting example of this form of middleman. It takes care of the selection and securing of stations for the advertiser. It also is equipped to undertake production and servicing of spot announcements, live talent broadcasts, or electrical transcriptions, possessing its own subsidiary company for the latter purpose. Recently it has entered the special representative field, acting in this capacity for the Yankee Network and a number of stations. An organization of this type, therefore, is capable of rendering complete spot service to an agency or program sponsor, and is especially well equipped to fulfil the functions attendant to spot broadcasting.

A new development during the past year has been the trend toward the special representative. This had been tried previously, but, largely due to a misunderstanding of what was involved in the situation, the attempt failed. During the summer of 1932 a number of special representatives entered the field, thus constituting a new and interesting type of spot broadcasting middleman. The theory underlying the special station representative is the same as that of the newspaper representative. Few periodicals can support an exclusive representative or maintain their own office in the advertising centers of the country, from which the space buyers of the agency can be approached. Consequently, an individual or organization is appointed as that periodical's special representative in the territory in question. His task then is to secure as much business as possible for his periodical and he usually is paid a certain percentage on all business secured by his paper from companies located in the territory wherein he represents it. The arrangement is a logical one, and, since the question of station representation is a very similar one, there are sound reasons for the entrance of the new middleman. Moreover, the step seems to have the sympathy of the advertising agencies, which should be of material assistance, in the long run.

The position of the special station representative is not as simple as it appears at first glance. The production and execution of a spot broadcasting program is a more complicated problem than the production of a printed advertisement and the sending of the mat to the local newspaper. Though stations are bought separately, they are planned in groups to an even larger extent than probably are newspapers, because of the technical aspects of station coverage. In addition, the program must be produced and its broadcasting serviced. In case the program is an electrical transcription, a company operating in that field is in a position to render most of the services of the special station representative without recourse to him. Moreover, because of the close relations it has built up with large numbers of stations, it may be in a better position to secure the desired time over the entire area in question, thus partially relieving the agency of this burden. The same advantages rest with the spot specialist. Consequently the special representative faces severe competition from the larger and more important middleman organization in the field.

To this is added the difficulty of compensation. During the summer of 1932, commission was paid only on programs actually secured, rather than on all business originating in the territory. Under this form of financial arrangement, the situation may arise where the station representative has expended a great deal of effort in an attempt to secure a certain account, but has failed in achieving his purpose. However, as a result of his activities the company in question later reconsiders its decision and contracts for time directly with the station. Since the business has not been placed through him, the station representative receives no compensation for the program, even though he has been largely responsible for the station getting the business. Because of the possibility of contingencies of this sort, an arrangement providing for compensation to the station representative on all business originating in his territory is the more desirable. This is true in spite of the fact that, under it, a mediocre representative may be unduly compensated for business which he has done little to secure.

Another factor which seriously threatens the future development of the station representative is the so-called associated group plan, sponsored in recent months by Scott Howe Bowen, Inc. Under the plan certain of the stations represented by this company have agreed to sell their time to program sponsors at the same rate as is charged for their facilities by the national network with which they are respectively affiliated. The plan is to be operative only in case that time is contracted for on at least ten stations. Since the network charge for a given station is considerably lower than the station's own card rate, the associated group plan presents the possibility of important savings to the spot broadcaster. It also increases the ability of spot broadcasting to compete successfully with the national networks.

What will be the future of spot broadcasting structure is almost impossible to say. The conflicting tendencies in the field are such as to afford little opportunity even for speculation. Several tendencies seem to be fairly certain. One of these is that the advertising agency will continue to take an increasing part in the preparation and execution of broadcast advertising. A second conclusion is that, as long as spot broadcasting exists, the functions originally performed by the time broker will have to be carried on by some form of organization. Whether this organization will be an integrated one, such as the World Broadcasting System or Scott Howe Bowen, Inc., or whether the special station representative will play an important part in the ultimate middleman structure, is difficult to say. A trend toward integration is to be noted both in the establishment of the associated group plan and in the setting up of spot broadcasting services by the two national networks for the stations owned or controlled by them.

Another interesting possibility which has been suggested is the formation of a co-operative group of stations which would sell time through a central office, engaged in joint promotional effort, and maintain a co-operative source of talent and program material. In brief, they would function much in the same manner as does the "Hundred Thousand Group" in the periodical field, except that, in the case of the radio stations, the scope would be widened to permit an effective adaptation of the organization to the complicated problems of spot broadcast advertising. This suggestion is very similar to the one made regarding a co-operatively owned and operated national network. Indeed, the two ideas are not antagonistic and it may be possible to incorporate both of them into the same general plan. Whether either of them will turn out to be practical, or whether they are merely visionary, only the future can tell. They constitute an interesting possibility, and one which the student of broadcasting will do well to consider seriously before rejecting entirely.

In addition to the problems of structure originating out of the rise of spot broadcasting, new questions of commercial practice have also come into existence. A number of these, such as the question of time broker, already have been discussed in sufficient detail. Others demand additional consideration, if the problems of commercial practice in the spot broadcasting field are to be appreciated.

One of the most important questions facing the broadcasting stations of the country at the present time is the maintenance of published card rates. The practice of accepting business at less than the published time charge originated in the early days of spot broadcasting. Its evils were accentuated by the general laxity which characterized the relations between broadcasting station and time broker. The greater clarification of the middleman problem of the industry, however, has not lessened the station rate problem to any appreciable extent. Many small stations are faced with declining local business due to the protracted business depression, and are willing to accept accounts at any rate which the sponsor is willing to pay. A number of large stations are beginning to find it very difficult to secure the volume of business necessary to meet the operating costs entailed by high power. As a result there is a widespread tendency to accept business at less than the card rate, in spite of the fact that the card rate, itself, may be so low as to provide no more than a fair margin of return over and above station expenses. The introduction of a price-cutting element of this sort into broadcast advertising is a step which imperils the stability of the entire industry. Not only does it adversely affect station revenue, but it also increases the temptation on the part of the station to make up its lost advertising volume by accepting business of lower quality and of doubtful public interest. Unfortunately, the problem is one with regard to which effective joint action is extremely difficult. However, it is earnestly hoped that something will be done to meet the situation before too much damage has been wrought.

Within recent months several new variations of price-cutting have entered the broadcast advertising field. One of these is the rendering of excessive merchandising service on the part of the station. In this case the station will assist the agency or program sponsor in contacting dealers in the territory, setting up displays, making reports on the progress of sales in the district during the broadcast advertising campaign, and will perform numerous other functions entailing considerable expense belonging logically to the company or its advertising agency. The excessive furnishing of free service of this type constitutes a form of price-cutting just as much as does the acceptance of business at less than the published card rate.

Another form of business which is raising a serious problem of rate charges, especially among the smaller stations, is the rise of the so-called payment "per inquiry" or by granting "commission." Under the former method the station is paid a flat rate per inquiry received and forwarded to the advertiser. The latter method provides for payment of the station by means of a commission of a specified amount on each unit of goods sold by it.

An example of the "per inquiry" method is found in the offer of one advertising agency to pay the broadcasting station ten cents for each inquiry received regarding a fat-reducing tea, whose sale the agency is promoting. The letter addressed to the station says in part: "You know your station—we don't. If you have faith in your ability to produce inquiries, we are ready to go ahead with you on the above-mentioned basis. If you haven't faith in your station, then, of course, we could not be expected to have either! That's putting it up to you 'cold turkey,' but we prefer to deal on an open and above-board basis."[2] Another concern[3] writes the station that it has been "fortunate" enough to be able to sign up a company for "a large amount of broadcast-advertising." It states that the advertiser carries regular schedules with "important publications," but asks the stations to read wordy announcements free, except that "this account pays your station 15c net per inquiry." In this manner, not only is the station card rate completely nullified, but the station and not the advertiser is forced to bear the brunt of poorly constructed announcements, badly conceived sales programs, and products of doubtful value.

The commission method of station payment has the effect of putting the broadcaster into the retailing business. Thus one advertiser offers a magic water[4] which is "the most effective in the correction of constipation and most of all, kidney, liver, stomach and bladder disorders" as well as other diseases "resulting from bad blood and faulty elimination." The product costs one dollar a pound, "allowing your station 28c net." Similar propositions have been presented to stations to secure their co-operation in the sale of books, guitar lessons at one dollar with a money back guaranty, as well as various patent medicines. Not only is the method of payment economically unjustifiable, but the questionable value of many of the products which companies are attempting to sell in this fashion raises a serious problem of public interest. Should any large number of stations accept business of this order, it might become necessary to enforce stringent regulations in this field.

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[2] *Broadcasters' News Bulletin,* National Association of Broadcasters, February 11, 1933.

[3] *Ibid.,* February 11, 1933.

[4] *Ibid.,* February 11, 1933.

Another problem which arose early in 1930 was the question of whether commission should be paid on talent. This problem was debated at length at the National Association of Broadcasters' Convention[5] of that year. This is a much more important consideration in broadcast advertising than is the corresponding problem of commission on art work, engravings, and similar items in the case of printed advertising. In the case of talent, the cost per program averages from 25 per cent to 50 per cent of the time charge, and sometimes even exceeds it. Art and production charges in the periodical field, on the other hand, seldom exceed from 5 per cent to 10 per cent of the cost of the space. At the National Association of Broadcasters' Convention the sentiment was mostly in favor of granting 15 per cent commission on talent furnished by the station, provided that the agency had done something to earn the commission by preparing the program and rehearsing the talent. The question was largely settled in the negative in the early part of 1931, when the American Association of Advertising Agencies declined the offer of one of the national networks to grant a 15 per cent commission on talent secured through it.[6]

This decision was reached because many of the agencies believed that a commission on talent, though justifiable in theory, was open to much abuse. If anything in the nature of standardized rates had been possible in the talent field, the question might have been decided differently. The cost of talent is subject to individual bidding, and there is such a wide fluctuation in charges, that it was believed a commission on such a variable would have harmed the agency more than it would have helped it.

The preceding have been but a few of the problems of commercial practice which face the broadcasting industry today. A satisfactory solution still remains to be worked out with regard to the question of agency recognition and the payment of commissions only to agencies and organizations which have been accorded recognition. The problem of the establishment of a bureau of credit information is a pressing one, in order that the annual losses suffered by stations and agencies in the spot broadcasting field may be materially reduced. There is a great need for the development of standard station accounting so that executives in the field may know what are the real costs of station operation. The development and adoption of scientific bases for the measurement of station coverage and popularity, and of standard promotional practice by the industry, is another highly important problem remaining to be solved. These and numerous minor questions require a joint attack on the part of the broadcasting industry as a whole in the near future, if it is to continue to progress in the future.

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[5] *Proceedings, Eighth Annual Convention*, National Association of Broadcasters, pp. 45–50.

[6] Mr. F. W. Gamble, in interview.

In addition to problems of commercial practice within the industry itself, several important questions face broadcasting from outside its own borders. The most pressing of these is the urgent necessity of effecting an economically justifiable arrangement with the American Society of Composers, Authors, and Publishers regarding the fees to be paid for the privilege of broadcasting music controlled by that organization. Since this includes a great deal of the broadcasting repertory, the problem is a very serious one. In so far as the question is outside the main scope of the present investigation, and because the bitter controversy of recent months has tended to confuse the issue very greatly, no attempt will be made to discuss the details of the problem at this time. However, it is difficult to see how the broadcasters can be expected to pay a threefold increase in music fees; these fees, in turn, being levied on the basis of a percentage of gross station revenue, regardless of whether the programs in question contain any music, or whether they are confined to talks and dramatic presentations. The only exception made to date has been the exclusion of the political broadcasts of the presidential campaign, from the operation of the copyright fee. Not only is the basis for their collection economically unjustifiable, but, in view of the present condition of the broadcasting industry, it is questionable whether a substantial number of stations could successfully bear the additional expense.

Important problems also exist in the legislative field, which, though they relate largely to taxation and station regulation, indirectly affect the matter of broadcast advertising. Broadcasting is a new, dramatic, and potent influence in the community. Its introduction has raised many perplexing problems in the legal and government fields, as well as economically and socially. Consequently there has been a great temptation to legislate on the matter, and the number of bills introduced with respect to radio is tending to mount annually. This is all the more the case, now that state legislatures are joining Congress in their interest in broadcasting. Undoubtedly some of the legislation has been well conceived and highly beneficial. Other enactments have had less to recommend them. Because of the comparatively inadequate knowledge of legislators and public alike regarding the problems of radio broadcasting, as well as by reason of the efforts of certain special interests to turn radio legislation to their own advantage, this aspect of broadcasting must be followed with great care by the industry for some time to come.

CHAPTER IX

THE USE OF RADIO BROADCASTING IN LOCAL ADVERTISING

Radio broadcasting has always been closely allied with local retail advertising endeavor. Indeed, most of the small stations that grew up like mushrooms during the first years of broadcasting were in the nature of advertising ventures. Manufacturers and retailers saw in this new invention a means of attracting public attention and establishing goodwill for their own products and institutions. The operation of the broadcasting station of 1922 and 1923 was a relatively inexpensive matter, while the publicity value derived therefrom was great. This value was confined principally to the community and its environs in spite of the fan mail which was received from far and wide.

It was this publicity and goodwill value arising out of the ownership of a broadcasting station which later caused L. Bamberger and Company, Newark department store, and owners of WOR, to estimate the publicity value of their station during the period 1924–28 at $1,000,000, a figure more than double the cost of its operation.[1] Since the transfer of the ownership of the store to R. H. Macy and Company, the station has produced sufficient sales results to impel the present management to spend 10 per cent of the store's "space" dollar appropriation for radio broadcasting.[2]

In 1923, a total of 180 of the 573 stations were owned and operated either by electrical shops or radio stores, comprising 31.4 per cent of all of the stations in operation. In the same year 22 department stores and dry goods establishments were among the owners of broadcasting stations.[3] Other similar establishments owning stations in these early years included music shops, garages, banks, theaters and amusements, newspapers, together with a large number of stations operated under the names of the individual owners, many of whom are certain to have been associated with retail distributive enterprises in their own localities. Indeed, other than churches and schools, this seemed to be the only form of station ownership.

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[1] *The Use of Radio in Sales Promotion,* by Edgar Felix (McGraw-Hill), p. 16.

[2] "Making Retail Radio Advertising Produce," by Kenneth Collins, executive vice-president, R. H. Macy & Co., Inc., in *Broadcasting,* October 15, 1932, p. 5.

[3] *Commercial and Government Radio Stations of the United States* (1923).

The early rush of retail distributors into the field of radio broadcasting, however, was short-lived. By 1925 the number of electrical and radio stores operating stations had decreased to half the figure of two years previous, while other types of retail ownership also were declining. In the meantime the broadcasting company, devoted exclusively to this business, was coming into the ascendancy. By 1932, electrical- and radio-shop ownership of stations had decreased to 46, while the number of department stores and dry goods establishments owning broadcasting stations had declined from 22 to 10 establishments. For the time being at least, the use of radio broadcasting in local advertising was forced into the background by its development as a national medium.

The slow growth of the local aspects of broadcast advertising was due to a number of reasons. The small shops originally setting up the low-powered stations of the early days[4] were unable to meet the financial requirements of larger stations and more ambitious programs. The larger stores themselves showed little or no appreciation of the potentialities of the new medium, and, as a result, either paid scant attention to it or abandoned it entirely. On the other hand, department-store stations such as WOR, Newark, and WNAC, Boston, became community institutions. The former station broadcast the New York Philharmonic Symphony Orchestra for several years prior to the taking over of that program by the Columbia Broadcasting System. It pioneered in various kinds of programs, such as the "Choir Invisible," broadcast every Sunday night in the interests of *Charm*, the Bamberger house organ. Finally it took an active part in all community events, so that the station created for itself a personality in keeping with that part of its identification announcement which stated that it was owned and operated by "one of America's fine stores, located in Newark, N.J." The story of

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[4] A power of 25 or 50 watts was relatively high in 1922, while 100 watts corresponded to the high-power station of today.

WNAC, Boston, owned by the Shepard store of that city, is similar to Bamberger's.

With regard to the failure of the small retailer to enter upon a program of broadcast advertising over local stations, a number of reasons have been operative. The most important of these have been the limited financial resources of the average retailer; his relative lack of merchandising ability and consequent conservatism as compared to the national distributor; and, finally, the misuse which many retailers made of the broadcasting which they did carry on. Regarding the last of these reasons the situation is summed up by Mr. Collins as follows:

> Radio advertising has failed to produce for most retailers. That's not the fault of the medium. It's because of the stupidity of the retailers. Stores have repeatedly bought radio time with no notion what they could do with it and have put on different broadcasts for a period of a few weeks or months—and then, failing to get their money's worth, have loudly complained about the deficiencies of this form of advertising.[5]

This situation is not surprising. Retail advertisers, except in the larger centers, have always been relatively unskilled in the art of presenting their sales messages. Broadcast advertising, in turn, is vastly more complicated than is newspaper advertising, and, though it pays high rewards to the enterprising and skilful advertiser, it, in all probability, penalizes severely the mediocre presentation. Finally, the retailer who did summon up the courage to attempt broadcasting had little in the way of a model to copy, while the station, in many cases, could not offer much constructive assistance.

Despite these early handicaps, it is quite probable that the local use of radio broadcasting for advertising purposes by the retailers of the community and small local manufacturers constituted the backbone of more than one station's revenue and comprised an important part of the total expenditure for broadcast advertising. Many stations literally were kept alive by the short spot announcements read between phonograph records during the morning and afternoon periods reserved for this type of broadcast, and for which rates from two dollars and up were charged for each piece of copy.

Though it is impossible to present any statistical data on the subject, it seems fairly certain that there has been a steady growth in the use of radio broadcasting by local advertisers during the past several years. It is equally probable that there has been an actual decline in this type of business during the current season, due to the generally adverse business conditions. Station managers seem to agree that the most important growth in local broadcast advertising has come since 1928 or 1929, and that the reasons for this development lie chiefly in the following factors: (1) the local retailer, having seen the success attained by the national broadcast advertiser, decided to follow the latter's example and at least try the new medium; (2) the satisfactory results attained by the local pioneers in broadcast advertising caused their colleagues and competitors to emulate them; and (3) stations were beginning to offer intelligent broadcasting service to the retailer, both with respect to program service and the actual broadcasting of the sponsor's presentation. From the estimated total broadcast advertising expenditures for the year 1931[6] it seems reasonable to assume that local advertisers spent in excess of $15,000,000 for radio broadcasting during that period.

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[5] Kenneth Collins, *op. cit.*

In connection with the analysis of the trend regarding local broadcast advertising, it is interesting to note the replies of the managers of 30 network stations to the question as to whether their local or chain business had increased most rapidly during the past four or five years.[7] Of the number mentioned, 15 reported a greater increase in local than in network business; 13 indicated the opposite situation to pertain to their station, while 2 stations stated that they did not encourage local business. Of the 13 stations reporting a relatively greater network growth, 5 had been on the chain for less than two years, and in all probability were just beginning to receive their normal proportion of business of this type. It may be that, because of the wording of the question, a certain amount of national spot business was included in the estimates of various managers. However, the answers as to why the local business had increased more rapidly than network advertising seem to indicate this factor to be of relatively small importance. In this respect, the fifteen station managers reporting increased local business were practically unanimous in attributing this trend to the following reasons: (1) that broadcast advertising was beginning to attract the better types of local business; (2) that local retailers as a whole were beginning to copy national advertisers; (3) that their own improved facilities made broadcast advertising more attractive to the prospective program sponsor; and (4) that it was vitally necessary for the station to secure local as well as national business.

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[6] See chap. vi.

[7] The question was: In your opinion or experience, has your local or chain business increased the most rapidly during the past four or five years? What reasons do you believe explain this trend? See Appendix C for other questions.

Though it is impossible to make any detailed tabulations regarding the proportion of various types of local business employing radio broadcasting as an advertising medium, an examination of the sponsor lists of a group of the stations supplying detailed information on this subject indicates the following to be the most important types of local sponsors: (1) local department stores—reported by almost every station; (2) specialty shops, especially those selling shoes, clothing, jewelry, and furs; (3) other larger retail establishments including restaurants, hotels, and a few banks and brokerage houses; (4) local manufacturer-distributors such as bakeries, meat producers, ice companies, lumber dealers, dairies, public utilities, and wholesale-grocery establishments distributing their own brands; and (5) local distributors of nationally advertised products such as refrigerators and automobiles placing their own programs either in co-operation with the manufacturer or completely on their own initiative. In the former instance this form of local advertising impinges upon the spot broadcasting field.

It is interesting to note that, in the foregoing list, some of the most important users of national broadcast advertising—nationally branded food products, cosmetics, cigarettes and tobacco, and similar convenience goods—are missing. Local broadcast advertising, therefore, seems limited chiefly to local brands, local supplementary advertising of national brands, and principally to retail advertising, where the important element is that of creating a loyalty to the store itself. However, it should not be assumed that the potential users of this sort of broadcast advertising constitute a small and closely circumscribed group of establishments. On the contrary, the widest possible variety exists in the types of concerns sponsoring programs over local stations. Included among the types not mentioned previously are building and loan associations, dairies, wholesale-grocery establishments, taxicab companies, real estate brokers, morticians, memorial parks, loan and finance companies, carpet cleaners, meat packers, opticians, theaters, public utility companies, fraternal orders, churches and religious organizations, gasoline service stations, and similar types of business.

The prevalence of morticians and memorial parks on broadcasting stations, and their almost uniform success with this type of advertising, constitutes an interesting if somewhat ironical sidelight upon the functioning of broadcast advertising. Services of this sort can be sold much better through the medium of music and a quiet friendly voice, where the emotional connotation can be expressed in a tactful fashion superior to that possible in cold print. Of course, it is not necessary to go as far as the program on a West Coast station, which was one of the most popular and successful broadcasts on the station, but which, by an incongruity seldom possible outside the realm of Gilbert and Sullivan, had for its theme song "The End of a Perfect Day."

As to the trend in business on the part of stations of various size, no conclusive evidence is possible.[8] There seems, however, to be some slight tendency for the better-class retail trade to look more favorably upon the 100- and 250-watt stations than in earlier years, though this type of business concentrates mostly upon the stations of more than 1,000 watts in power. It is the most powerful stations which seem to secure the largest share of the national spot business, however.

Another question which arises regarding local broadcast advertising is the relative proportion of spot announcements, electrically transcribed programs, and live talent broadcasts sponsored by the local advertisers. As has been mentioned previously, the spot announcement, concentrated largely in one morning and one afternoon period especially devoted to broadcast advertising of this type, is an integral part of the broadcast advertising facilities of the great majority of stations, and often constitutes one of their most important sources of revenue.

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[8] The conclusions presented in this respect are based on the answers of 58 station managers to the question "Have there been any marked trends or changes in the types of industries or companies sponsoring programs over your station in the past four or five years?" The answers, however, were so variegated in form of presentation that tabular presentation was impossible.

Some of the better announcements have been extremely successful, especially in cases such as department stores, where shopping notices can be broadcast to the housewife prior to her starting on her morning buying tour, and where information of this type constitutes a distinct service to many listeners. As far as can be determined, department stores are tending to add this form of broadcast to their live talent institutional programs to an increasing degree.

On the other hand, the electrically transcribed program has not made much headway among local advertisers. The principal reason for this has probably been the difficulty of securing desirable transcriptions for local programs, and the fear on the part of the advertiser that the public reaction might be unfavorable to the recorded program. Finally, the live talent program is meeting with increasing favor on the part of the better class of retailers. This type of program assists the store to create a definite radio personality for itself. Moreover, its personal touch assists greatly in building goodwill, upon which store patronage to a large degree is predicated. It also creates a foundation of listener interest which later in the series makes possible an increased amount of direct selling, providing the latter is tactfully done. The trend over the past several years seems to have been in the direction of this form of program as far as the local advertiser is concerned, though, within recent months, the continued severity of the depression has brought with it an increased retail demand for the cheaper spot announcement.

In discussing the broadcasting structure, a specialization of stations with regard to certain types of audience was noted. This specialization, in turn, is important to the local broadcaster, in that it determines to a very large degree which station he will employ in a given community. In this respect there is a tendency for the better class of trade to concentrate upon the larger and more important stations, while the smaller retailer eventually seeks the smaller station. The economic and cultural groups which a station elects to serve also will affect the choice of the broadcasting outlet on the part of the retailer. Thus a station such as WLS, Chicago, will be especially well adapted to any establishment interested in attracting the outlying farm population who may do part of their trading in that city. Recently, the foreign-language station also has come into prominence in the larger cities, and in turn opens important sales opportunities to certain types of retailers.

A final question which arises with regard to the local use of broadcasting as an advertising medium centers about the problem of selling broadcast advertising to the local retailer. From the practices which he has observed in operation or which have been told to him by station managers, station sales policy seems to have been one of the important contributing factors to the slow growth of retail advertising over radio stations in past years. The entire matter of solicitation often has been pursued in haphazard fashion, without prospect lists of any real value, with little follow-up on potential customers, and with inadequate supervision of the individual salesmen. Thus the sales manager of one station reported that, prior to his assuming the position, the station had had as high as twenty salesmen operating in the city at one time, with the result that hardly any of them were making a living wage. Since then the sale force has been greatly reduced and its efficiency commensurately increased.

Another factor necessary in the sale of local broadcast advertising is the proper servicing of the retail accounts by the station. In the opinion of J. Thomas Lyons, executive vice-president of WCAO, Baltimore, one of the most successful smaller stations on the eastern seaboard, this is one of the most important of all factors in successful station operation. To this end a knowledge of retailing is necessary on the part of the broadcaster so that he may be able to advise the merchant as to the best manner in which to co-ordinate his broadcast advertising with the rest of his sales program. In the case of the station in question, a retailer is not advised to begin broadcasting until the station executives have assured themselves that he is in a position to secure a definite number of permanent customers from the initial sales brought him by broadcasting. To this end the station analyzes carefully factors such as the dealer's inventory, window and interior display, and advises him regarding them. Following this, it attempts to adapt its entire broadcasting policy to meet his special needs. If the dealer is situated away from the main shopping centers, the station announcement will emphasize his location, pointing out its convenience and general accessibility. Moreover, all programs are carefully checked as to results at the end of every fourth week, and those which have failed to produce satisfactory returns during that period are changed immediately. Through methods such as these, ideally adapted to making broadcasting an effective medium for retail advertising, a highly successful business has been created.

PART III

CURRENT PRACTICE IN BROADCAST ADVERTISING

CHAPTER X

VARIATIONS IN THE USE OF BROADCAST ADVERTISING AS TO DIFFERENT SEASONS, DAYS OF THE WEEK, AND HOURS OF THE DAY

The elements underlying the utility of radio to the listener, the adaptability of broadcasting effectively to convey the advertising message, the listening audience available to the broadcast advertiser, the station and network structure through which that audience may be reached, and the extent to which broadcasting facilities are being used by advertisers thus far have been discussed. The next phase of the subject requiring attention is the matter of current broadcast advertising technique. This involves a discussion of such matters as the time of the year, week, and day when radio is employed by advertisers, current practice regarding program construction, commercial announcement technique, the question of contests, special offers,[1] and similar problems.

In so far as the question of the variations in the use of broadcast advertising at different seasons, on different days of the week and hours of the day, affords the best transition from an analysis of the extent of broadcast advertising to the specific problems of its technique, it will be discussed first. The approach will be primarily from the viewpoint of the national networks, with regard to which comparatively detailed information is available.[2] Supplementary data, representing the individual station phase of this problem, will be presented in the form of summations of station executive experience.

The seasonal variation in the expenditures over national networks is presented graphically in Charts X to XII, both for advertisers as a whole and for those industrial groups whose expenditures have been large enough and whose efforts have been sufficiently continuous to make possible the computation of a seasonal pattern.[3] No attempt has been made to indicate the trend in the amplitude of the seasonal fluctuations, since the short span of years during which broadcasting networks have been in existence makes this impracticable. For the same reason, the seasonal pattern for the total network advertising, as well as for industrial groups, should be interpreted chiefly as being representative of the situation to date. This is necessary since it is difficult to determine the probable extent of their bearing on future trends in the field.

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[1] This latter field has grown rapidly within the past two years and involves the whole problem of correlating the broadcaster's program with the rest of the advertising campaign.

[2] *National Advertising Records*, published by the Advertising Records Company, constitutes the source of money expenditures over networks. The proportion of commercial to total hours broadcast at different seasons, which constitutes the "time" measure in the chapter, has been secured from original network records.

The low ebb of broadcast advertising over networks occurs in August following which there is a rapid increase in business until October. From then until January, conditions remain comparatively static. During that month, however, there is a slight rise in network advertising expenditures. In March a much sharper rise occurs, following which there is a gradual decline until the low point is reached in the ensuing August.

The general contour of the seasonal pattern closely follows accepted broadcast advertising practice. Network contracts are usually placed as of the beginning of October and continue in force until the following April or May. The minor variations are more difficult to explain. The slight decline in November, as compared to October, undoubtedly is due to a small number of experimenters dropping out at the end of the first month, a tendency which was more pronounced in the early years of broadcast advertising than at the present time. Network records indicate that the rise in January is due to an increase in number of advertisers occurring annually during that month.

The sharp increase in network advertising expenditures in March is more difficult to explain. At first glance it would seem

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[3] The method employed in determining the seasonal pattern was that of relating the data to a 2 over 12 moving average, and taking the means of these values for each month and imposing those values on the average for the year. No attempt has been made to correct for secular trend because of the very short period of years involved. Likewise, the extreme variations in monthly expenditures for certain industrial groups, the capricious manner in which they tended to fluctuate especially in the early years, and at times the small expenditures involved have made impossible the calculation of a seasonal pattern for all of the industrial groups employing national network advertising.

CHART X

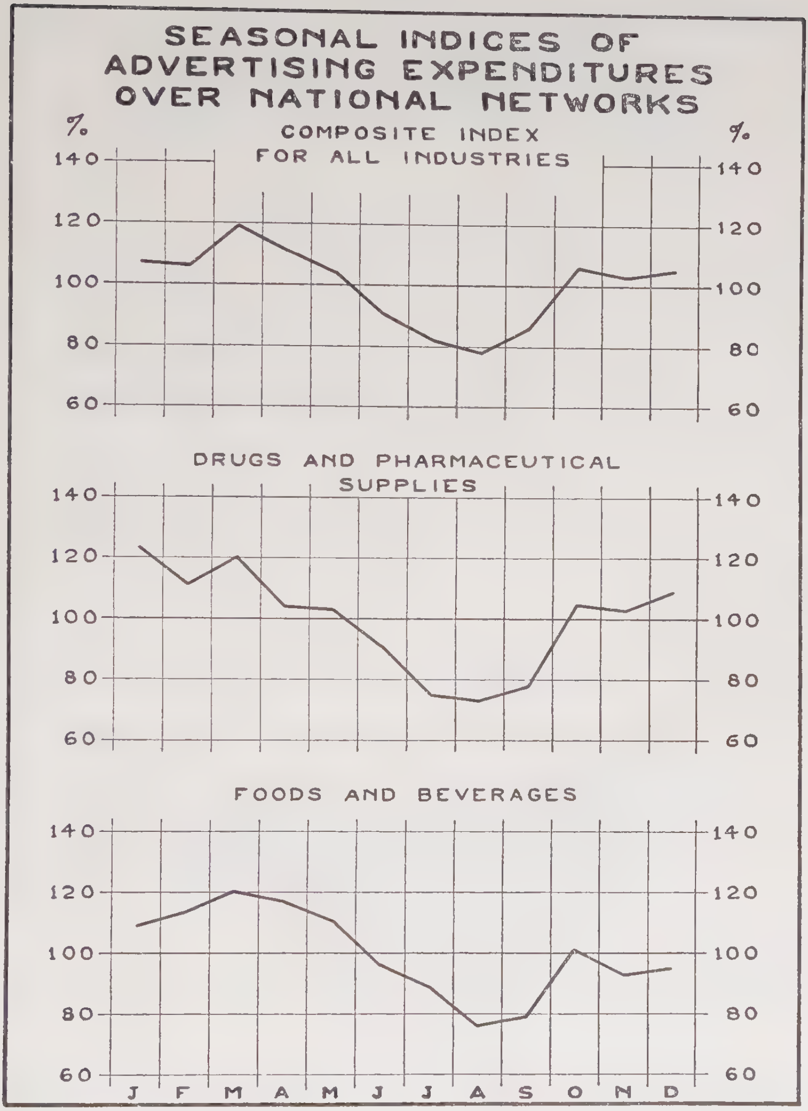

SEASONAL INDICES OF ADVERTISING EXPENDITURES OVER NATIONAL NETWORKS
%
COMPOSITE INDEX FOR ALL INDUSTRIES
%
140
120
100
80
60
DRUGS AND PHARMACEUTICAL SUPPLIES
140
120
100
80
60
FOODS AND BEVERAGES
140
120
100
80
60
J
F
M
A
M
J
J
A
S
O
N
D

CHART XI

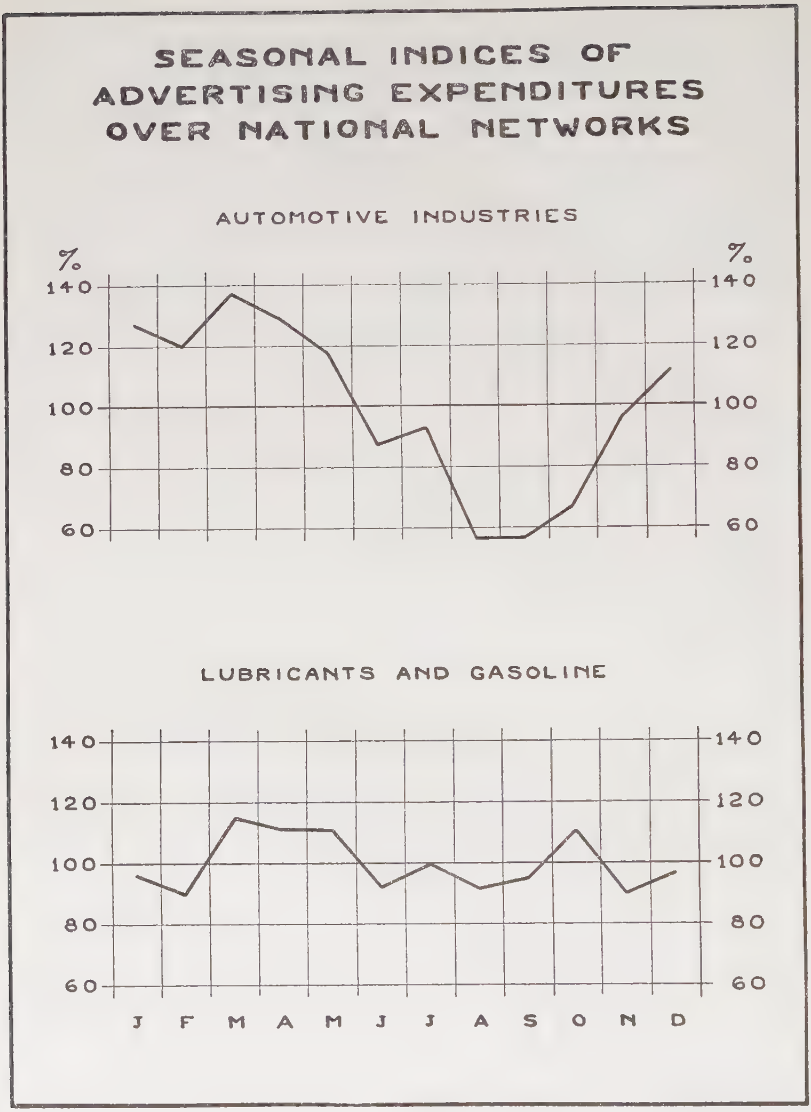
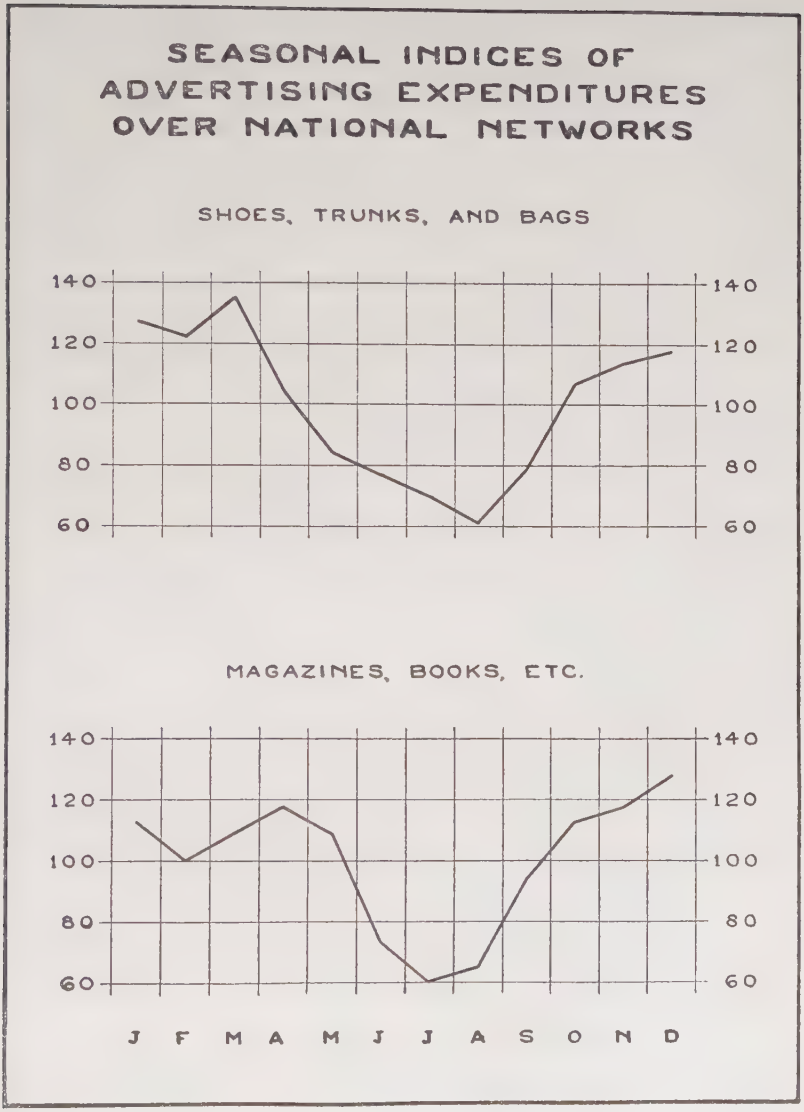

SEASONAL INDICES OF ADVERTISING EXPENDITURES OVER NATIONAL NETWORKS
AUTOMOTIVE INDUSTRIES
%
140
120
100
80
60
LUBRICANTS AND GASOLINE
J
F
M
A
M
J
J
A
S
O
N
D

CHART XII


SEASONAL INDICES OF ADVERTISING EXPENDITURES OVER NATIONAL NETWORKS
SHOES, TRUNKS, AND BAGS
140
120
100
80
60
MAGAZINES, BOOKS, ETC.
140
120
100
80
60
J F M A M J J A S O N D

that this rise merely indicated that advertisers were putting on pressure in anticipation of spring business. Broadcast advertising, especially over national networks, is not that elastic. It must be remembered that from 75 per cent to 80 per cent of network programs remain on the air[4] at least three months. Moreover, it is not possible to increase the amount of space or the frequency of the inserts for the brief span of a few weeks, as may be done in the case of printed advertising. Network programs require time for their construction and for the building of a habitual audience, so that the best results are attained from continuous effort over a comparatively long period of time. Therefore, if broadcasters were making a practice of placing additional programs in March, this increased business should be reflected in both April and May advertising volume, with resultant modifications in the seasonal pattern.

Though it is not a complete explanation of what occurs, the desire on the part of certain groups of advertisers for additional sales effort during the spring period is at least partially responsible for the March increase in business. Instead of consisting of business placed by regular advertisers, the March increase has been confined largely to experimental broadcasters, most of whom have remained on the air no more than a few weeks. Most of the companies in question have been small concerns. Quite probably many of them faced a situation where the pre-Christmas business has not been nearly as much as anticipated. In an attempt to recoup their losses, they sought some method of further increasing spring sales. Radio broadcasting was a new medium which had produced spectacular results for a number of companies. The small advertiser therefore sought it as a possible solution of his difficulties. After a short period of broadcasting, he found that the expected phenomenal increase in sales had not occurred, and that, in addition, radio was a highly expensive medium. Therefore he discontinued his network effort shortly after he had undertaken it.

An examination of network records indicates that a large number of these small companies have begun advertising either toward the end of February or the beginning of March, and have discontinued advertising shortly thereafter. In so far as they are not concentrated in any one industry, to whom such a practice conceivably might be an attempted solution of a seasonal problem, it seems probable that the preceding explanation is correct. It should be noted that the number of such concerns has shown a marked decrease over the past two seasons. Only 17.9 per cent of the network program sponsors broadcast for periods of less than three months during the 1931–32 season.[5]

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[4] For details, see Table XXIV, chap. vi.

The seasonal pattern of the food industry shows interesting variations from that of the general curve, rising to greater heights in the spring than does broadcast advertising as a whole, and declining later in the year. In addition, it experiences a somewhat slower growth in the fall. A number of factors enter into this situation. Part of the large expenditures during the first five months of the year are due to the concentration of a number of smaller companies on this period, when the demand for packaged food should be at its height. The experimental broadcaster also is responsible for this condition to a slight degree. Finally, the average duration of the broadcasting series of food companies is generally longer than that of concerns in other fields. As in the case of network advertising as a whole, the explanation of the seasonal curve lies principally in the period during which advertisers are on the air, rather than in any increase or decrease in the monthly expenditures of a given company, as might be the case in printed advertising.

The fluctuations in the seasonal curve for the drug industry are somewhat more irregular than those of the food group, and follow closely the trend of business activity in that industry. The only explanation which can be ventured for the monthly fluctuations again is the influence of the experimental broadcaster, who is on the air today and gone tomorrow. The major aspects of the seasonal pattern, however, tend to follow the contract periods of the principal advertisers in this field.

Two factors explain the seasonal variations found in the automotive field. The first of these is that most of the automobile advertising which has been done by different companies has come either at the time of the introduction of new models or else in anticipation of the spring buying season. The second factor is that the General Motors Corporation, the only consistent broadcast advertiser in the industry, has tended to apply pressure at these periods by putting on programs for individual makes of cars, and has discontinued all except its institutional broadcasting during the summer months. Lubricants and gasoline likewise show a definite correlation between the seasonal fluctuations in business and those of their broadcast advertising expenditures. Since the industry is a comparative newcomer on the air, as far as any large volume of advertising is concerned, it is difficult to present any conclusive evaluation of the significance of its seasonal pattern.

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[5] For details, see Table XXIV, chap. vi.

The explanation of the seasonal fluctuations of the shoe industry's broadcast advertising appropriations over national networks is the same as that presented for network broadcasting as a whole. Because of the very serious economic difficulties faced by the industry, its seasonal fluctuations have been especially severe. Though the seasonal pattern with regard to the advertising of magazines over the radio is definite enough in its characteristics, its significance is doubtful. The number of magazines on the air has always been very small. Until recently when they discontinued broadcasting—leaving *Time* the only magazine of importance remaining—*Collier's* and *True Story* were the only consistent broadcast advertisers among the periodicals. The other magazines tended to go on and off the networks in a capricious fashion, so that the peculiar drop in February is probably due almost exclusively to them.

Brief mention should be made of the more important industrial groups for which no pattern of seasonal fluctuation has been presented. In the case of cigarettes, the small number of companies and the irregular policy of several of the advertisers made impossible the determination of a definite seasonal trend. The comparative newness of soaps and household supplies as network advertisers and the varying policies followed by different companies caused the computation of the seasonal pattern in that industry to be impracticable. Insurance and financial advertising constituted the only other industrial group whose advertising expenditures were large enough to make possible a satisfactory calculation of seasonal trend. In this case it was found that practically no seasonal fluctuations existed, advertising continuing without cessation during the entire year.

The relative proportion of time devoted to commercial programs by national networks at different periods of the year also is of interest. This is found in Table XXVI for the key stations of the National Broadcasting Company Red and Blue and the Columbia Broadcasting System as of the second week of February, May, August, and November, annually.

An examination of the table indicates a tendency for the seasonal decline in the proportion of commercial to total hours broadcast to be greater in amplitude than is that of money expenditures for network advertising. This is even more apparent when a comparison is made of the proportion of commercial to total hours broadcast during the second week in August with that of the average of the second weeks of the preceding November and February.[6] This is found in Table XXVII.

TABLE XXVI

PERCENTAGE OF COMMERCIAL TO TOTAL HOURS BROADCAST OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, ANNUALLY, 1927–32

Year	Percentage of Commercial to Total Hours			
	February	May	August	November
1927	15.8	19.0	12.2	20.5
1928	20.6	17.7	13.3	27.7
1929	28.3	24.6	18.8	24.7
1930	22.2	21.8	18.9	29.2
1931	27.5	33.0	25.3	36.5
1932	33.3	27.4	....	....

From an analysis of the fluctuations in money expenditures and of the two preceding tables, it seems that it is the larger company, employing widespread network facilities, which tends to remain on the air during the summer months.

Lack of adequate data makes it impossible to present any conclusions regarding the seasonal fluctuations of either regional network advertising or spot broadcasting. Because of the greater elasticity of the latter, it is probable that a greater number of minor fluctuations may occur from month to month in this instance.

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[6] Because of the pronounced secular trend existing in these figures, which it is impossible to eliminate, the preceding November and February have been taken in preference to those following. This also is more logical from the viewpoint of broadcast advertising practice, since August of any year constitutes the end of a season's broadcast, which began with the preceding September.

An indication of the situation with regard to seasonal fluctuations in local broadcast advertising may be secured from the replies of managers of 50 radio stations to the question as to approximately what proportion of their local business remained on the air during the summer.[7] The results of the question are found in Table XXVIII.

It appears that between 70 per cent and 75 per cent of local station business remains on the air during the summer months, the median for the group being 71 per cent and the arithmetic average 75 per cent. The 5 stations reporting no seasonal decline are of especial interest. For the most part, they comprise small local broadcasters with a steady retail trade, and with regard to which increased advertising by typically summer undertakings such as ice and ice cream manufacturers may offset such small decline as has occurred among the regular winter clientèle of the station. In the case of the fiftieth station replying to the question, which does not appear in the table, the seasonal trend was reversed. The volume of summer broadcast advertising was consistently greater than that during other periods of the

TABLE XXVII

PERCENTAGE OF COMMERCIAL TO TOTAL HOURS BROADCAST BY THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF AUGUST AS COMPARED WITH THE AVERAGE OF THE SECOND WEEKS OF THE PRECEDING NOVEMBER AND FEBRUARY

Year	Percentage of August Commercial Broadcasting to Preceding Winter
1927	59.2
1928	47.5
1929	80.0*
1930	66.2
1931	72.5

* Entrance of CBS on a part-time basis as far as network sustaining service is concerned unduly raises this figure.

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[7] The specific question asked was: "Approximately what proportion of your local business remains on the air during the summer? Has the amount of summer radio advertising decreased or remained the same since 1929? If increased, has it done so faster than winter business?" See Appendix B.

year. This was due to the fact that the station was located in an important resort district of a far-western state.

The varying degree to which different days of the week are used for the broadcasting of commercially sponsored programs requires consideration along with the question of seasonal trends. Practice in this respect is indicated in Table XXIX with regard to the key stations of the national networks.

The outstanding feature of the table is the uniform manner in which the amount of broadcast advertising on Saturday lags behind that of other days of the week. The smaller volume of Saturday advertising applies to all portions of the day. Morning advertising is from 50 per cent to 80 per cent as much as on other week days, afternoon volume from 25 per cent to 50 per cent as large, and evening commercial broadcasting from 75 per cent to 80 per cent as great. There are two reasons underlying the small volume of Saturday broadcast advertising. The first and most cogent of these is the fact that, the next day being Sunday, more than twenty-four hours must elapse before the listener can act upon the advertiser's suggestion to purchase the article in question. A second reason is the belief on the part of many program sponsors that the potential radio audience is considerably smaller on Saturday than on other days, due to the prevalence of entertaining on Saturday night, and the greater competition experienced from other forms of amusement, such as the motion picture. It is extremely doubtful whether this

TABLE XXVIII

PROPORTION OF LOCAL BUSINESS REMAINING ON STATION DURING SUMMER MONTHS, AS ESTIMATED BY STATION MANAGERS

Proportion of Business Remaining on Station (Per Cent)	Number of Stations Reporting Same
Under 50	2
50–59	9
60–69	11
70–79	10
80–89	11
90–99	1
100	5
Total	49

psychology is true of a sufficient number of people to affect seriously the total size of the Saturday evening audience, though it may possess decided significance with regard to specific classes of listeners.[8]

Outside of the Saturday lag in advertising volume, the only other variation in the daily use of network facilities by program sponsors occurs on Sunday. Here again the volume of advertising tends to be less than that of other days, with the exception of Saturday, which constitutes the low ebb for the entire week.

TABLE XXIX

Proportion of Commercial to Total Hours Broadcast on Various Days of the Week by the Key Stations of the NBC Red and Blue and Columbia Networks during the Second Week of November, 1927–31*

Day of Week	Percentage of Commercial to Total Hours Broadcast				
	1927	1928	1929	1930	1931
Sunday	20.4	26.8	28.3	24.6	25.3
Monday	18.1	24.6	18.3	26.6	37.5
Tuesday	21.6	22.4	28.9	34.7	40.9
Wednesday	28.2	37.7	24.5	29.9	42.3
Thursday	25.2	24.9	22.3	32.8	40.9
Friday	15.4	37.9	29.6	32.3	41.5
Saturday	14.6	19.6	21.0	23.5	27.0
Entire week	20.5	27.7	24.7	29.2	36.5

* Source: Network program records.

This tendency is especially true of the past several years, the Sunday advertising volume prior to 1930 comparing favorably to that of other days. The principal reason for the slightly poorer showing of Sunday is the fact that there is practically no advertising on Sunday morning. Until a few years ago Sunday morning was devoid of commercial broadcasting, but recently several advertising programs have been scheduled for that time. Even at present the volume of commercial programs on Sunday morning seldom exceeds 6 per cent of the total programs broadcast during that period by the three basic networks. This is undoubtedly due to a reluctance on the part of advertisers to

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[8] See chap. iii for a discussion of the size of the listening audience on different days of the week.

run competition with church services for fear of antagonizing important segments of the listening public; and to an apathy on the part of the networks themselves—inspired by the same reason—with respect to the sale of Sunday morning time. Sunday afternoon broadcast advertising, on the other hand, is somewhat greater than that of other days of the week. In November 1930, it totaled 16.6 per cent of the hours broadcast by the key stations of the NBC Red and Blue, and the Columbia networks, as compared with an average of 11.0 per cent for the entire week. In November of the following year the proportion of commercial to total hours on Sunday afternoon was 41.6 per cent as compared with a weekly average of 21.3 per cent. With regard to volume of commercially sponsored programs, Sunday night has always been similar to any other evening in the week.

Seasonal variations with respect to the utilization of various days of the week by broadcast advertisers are of interest. A graphic representation of the proportion of commercial to total hours broadcast during the second week of February, May, August, and November, 1927–31, by the key stations of the three basic networks, as compared with Saturday and Sunday of each week, is found in Chart XIII, the actual percentages being presented in Table XXX.

It will be noted in this respect that Sunday shows the greatest seasonal variation, while the Saturday volume of broadcast advertising tends to decline less in the summertime than does that of the week as a whole. This probably is due to the high proportion of Saturday advertising made up of large companies, sponsoring programs several times a week, who are more prone to remain on the air during the summer than are most advertisers. These companies consist mostly of the more important manufacturers of convenience goods, who financially are best equipped for continuous broadcast advertising and who, in addition are capable of deriving the maximum benefit from such broadcasts by reason of their comparatively steady volume of sales at all periods of the year. The marked decline in the volume of Sunday advertising during the summer months is due to the fact that the listening audience is probably smaller at that time than at any other period of the year.[9]

Differences in the use of various days of the week for broad-

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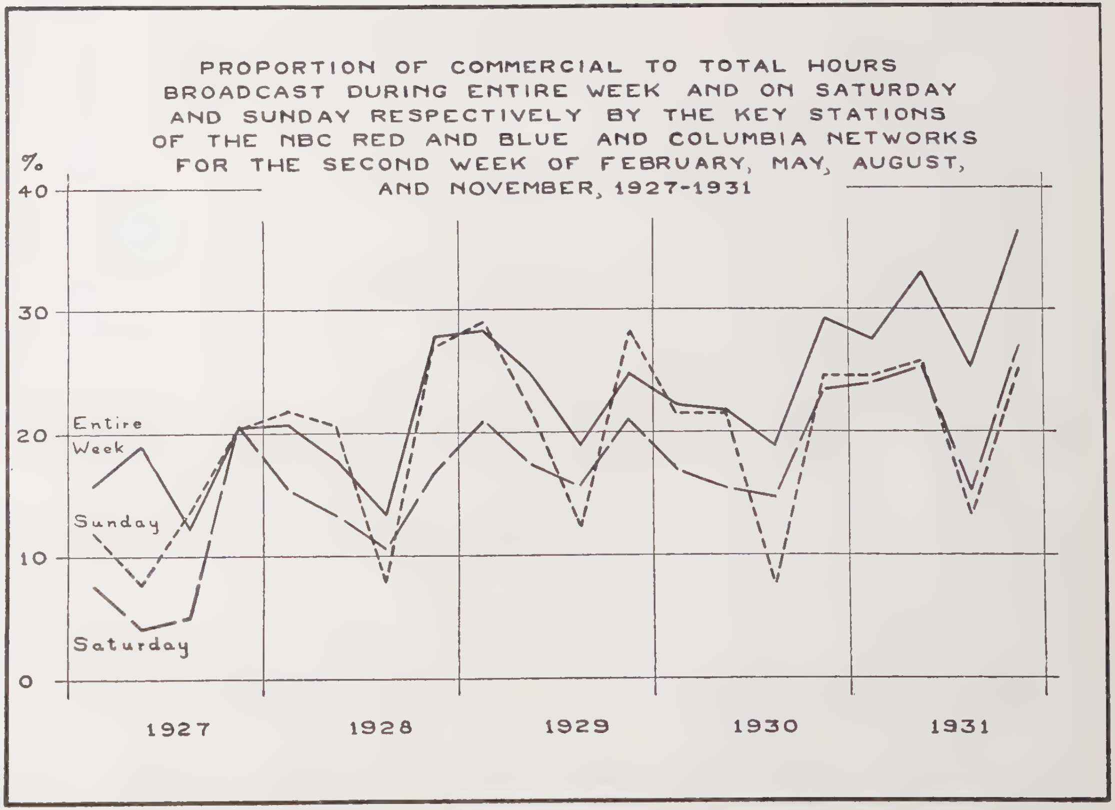
[9] See chap. iii for details regarding this aspect of listener behavior.

CHART XIII



PROPORTION OF COMMERCIAL TO TOTAL HOURS BROADCAST DURING ENTIRE WEEK AND ON SATURDAY AND SUNDAY RESPECTIVELY BY THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS FOR THE SECOND WEEK OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, 1927-1931 cast advertising over individual stations show somewhat greater variations than in the case of the networks. Friday tends to be the best day of the week to an even greater degree than in the case of the networks, while Saturday again is the poorest day, with Sunday ranking a close second. The latter is especially true in agricultural districts and in the South. The trends are confirmed by the replies of fifty station managers to the question[10] as to which were their best and poorest days of the week, respectively, with regard to the amount of commercially sponsored programs broadcast by their stations. Friday was stated to be the best day by 50 per cent of the station executives, Mon-

TABLE XXX

Proportion of Commercial to Total Hours Broadcast during the Entire Week and on Saturday and Sunday, Respectively, over the Key Stations of the NBC Red and Blue and Columbia Networks during the Second Week of February, May, August, and November, 1927–31

Month and Year	Percentage of Commercial to Total Hours		
	Saturday	Sunday	Entire Week
1927 February	7.7	11.8	15.8
May	4.0	7.6	19.0
August	5.0	13.5	12.2
November	20.6	20.4	20.5
1928 February	15.4	21.7	20.6
May	13.3	20.5	17.7
August	10.5	7.6	13.3
November	16.6	26.8	27.7
1929 February	21.0	29.0	28.3
May	17.3	21.5	24.6
August	15.6	12.3	18.8
November	21.0	28.3	24.7
1930 February	16.9	21.5	22.2
May	15.4	21.5	21.8
August	14.7	7.6	18.9
November	23.5	24.6	29.2
1931 February	24.0	24.6	27.5
May	25.3	25.7	33.0
August	15.2	13.2	25.3
November	27.0	25.3	36.5

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[10] The question asked was: "What is your best day of the week as far as volume of advertising is concerned? Your poorest? Has there been any shift in the use of broadcasting for advertising on different days of the week that you have noticed since 1929? If so, what?"

day by 12 per cent, and Thursday by 10 per cent, of the group. Another 10 per cent of those replying scattered their answers among the remaining days of the week, while 18 per cent of the managers stated that, other than Saturday and Sunday, all days were of equal value as far as the question of advertising revenue was concerned. Seven stations, most of them located in urban districts reported a trend toward increased Sunday business.

With regard to the question of which was the poorest day of the week, 60 per cent of the station managers specified Saturday, and 26 per cent Sunday. The remaining 14 per cent of the replies were scattered among the other days of the week, with the exception of Friday. Variations with regard to both the best and poorest days tended closely to follow local retail buying habits in all instances.

Of greater importance than either seasonal fluctuations or the varying degree to which different days of the week are used by advertisers, is the question of the degree to which different parts of the day are devoted to the broadcasting of commercially sponsored programs. The trends in this field, with respect to network broadcasting, are found in Table XXXI and Chart XIV.

Evening hours have always been the most popular period of the day for broadcasting commercially sponsored programs, the greater size of the evening audience being the dominating consideration in this respect. Morning ranks next in preference, while the afternoon hours have still to win favor with the broadcast advertiser. With regard to trends during the period under consideration, there has been little change in the proportion of evening hours devoted to commercial programs by network key stations since the formation of chain broadcasting systems. Such increase as there has been in this regard was experienced principally on the part of affiliated stations, which have gained in evening volume of network advertising through the wider use of network facilities by the sponsor companies.[11]

The volume of morning advertising showed no appreciable permanent increase until the fall of 1929, since which time it has grown slowly but with considerable regularity. Advertising by food and cosmetic concerns has chiefly been responsible for this trend. With the exception of the recent sudden rise in popularity of commercially sponsored programs directed to the children, most of which are concentrated between half-past four and six o'clock, the volume of afternoon broadcast advertising still is negligible. As was noted previously, Sunday afternoon commercial programs have constituted a satisfactorily large volume of business for a number of years, but their effect on the weekly total is nullified by the almost complete lack of broadcast advertising on other afternoons of the week. Recently there has been a slight increase in sponsored programs at this time of the day, though not enough to change appreciably the total volume of this type of business.

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[11] See chap. vi for details regarding the trend toward an increasing use of total network facilities.

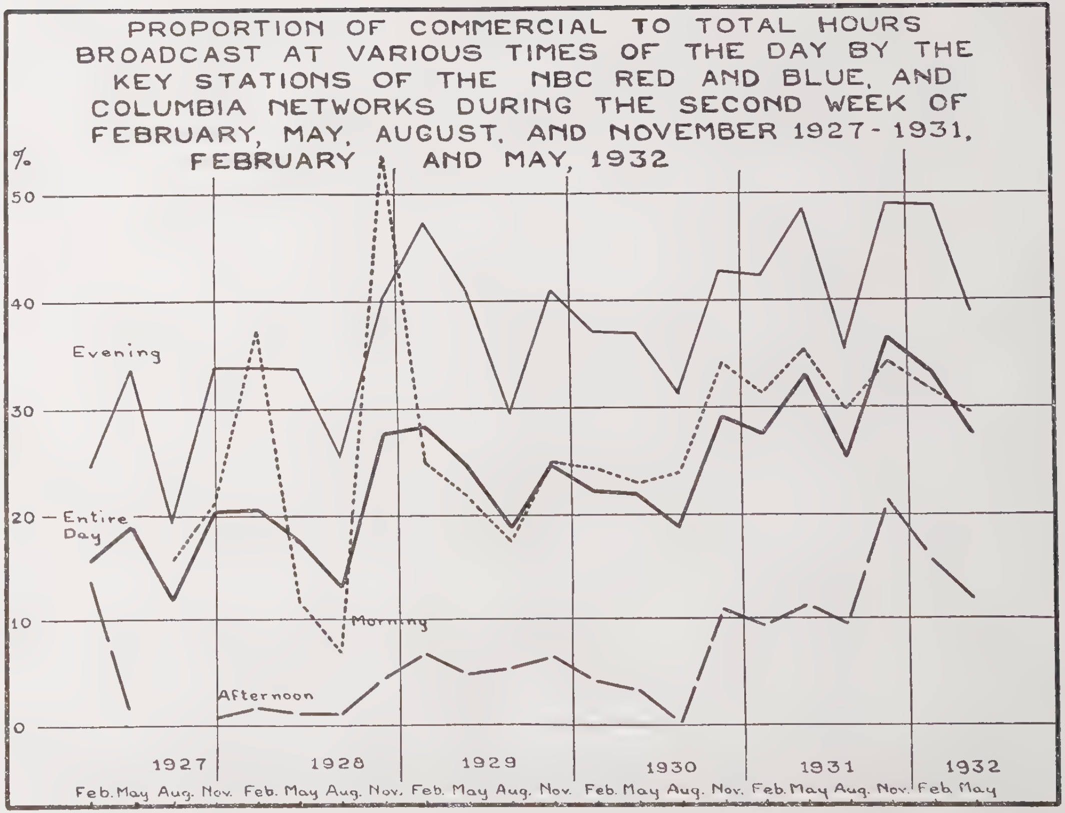
TABLE XXXI

Proportion of Commercial to Total Hours Broadcast at Different Times of the Day by the Key Stations of the NBC Red and Blue and Columbia Networks during the Second Week of February, May, August, and November, 1927–31, and February and May, 1932

Month and Year	Before Noon (Per Cent)	Noon to Six P.M. (Per Cent)	After Six P.M. (Per Cent)	Entire Day (Per Cent)
1927 February	11.1	13.9	24.6	15.8
May	....	0.9	33.7	19.0
August	15.8	....	19.4	12.2
November	21.3	0.9	33.9	20.5
1928 February	37.2	1.8	33.9	20.6
May	11.7	1.2	33.7	17.7
August	6.9	1.2	25.4	13.3
November	53.5	4.5	40.3	27.7
1929 February	24.9	6.8	47.3	28.3
May	21.8	4.8	41.3	24.6
August	17.5	5.4	29.5	18.8
November	24.7	6.5	41.0	24.7
1930 February	24.3	4.2	37.0	22.2
May	23.0	3.3	36.9	21.8
August	23.9	0.2	31.2	18.9
November	34.2	11.0	42.8	29.2
1931 February	31.4	9.4	42.4	27.5
May	35.3	11.4	48.5	33.0
August	29.8	9.5	35.5	25.3
November	34.2	21.3	49.0	36.5
1932 February	31.7	15.6	48.9	33.3
May	29.5	11.8	38.9	27.4

Brief mention should be made of the relative concentration of broadcast advertising at various parts of the morning, after-

CHART XIV



PROPORTION OF COMMERCIAL TO TOTAL HOURS BROADCAST AT VARIOUS TIMES OF THE DAY BY THE KEY STATIONS OF THE NBC RED AND BLUE, AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF FEBRUARY, MAY, AUGUST, AND NOVEMBER 1927-1931, FEBRUARY AND MAY, 1932 noon, and evening. The earliest commercial program in the morning is the Metropolitan Life Insurance Company's Tower Health exercises, broadcast over the NBC Red network from 6:45 to 8:00 A.M. every weekday. Following this period, commercial programs are scattered throughout the morning hours, with a slight concentration in the neighborhood of eleven o'clock. Other than the concentration of children's programs in the late afternoon, there seems to be little in the way of a definite trend with regard to this period of the day. Evening broadcasting has undergone an interesting change since the early days of the networks. Originally, broadcast advertising tended to concentrate between the hours of eight and ten o'clock. Gradually sponsored programs began to be broadcast earlier in the evening, until the phenomenal success of "Amos 'n' Andy" in the fall of 1929 convinced advertisers of the value of the supper hours and those immediately following them. Since then commercial broadcasting time has continued to move toward the earlier hours, until, at the present time, the children's and grown-ups' program periods merge with each other at six o'clock. With the exception of full-hour broadcasts, such as the Lucky Strike program, few commercially sponsored broadcasts are scheduled to last later than half-past ten at night.

With regard to the seasonal variations in the use of morning, afternoon, and evening hours for broadcast advertising, the last-mentioned period shows the greatest degree of fluctuation. Afternoon shows the least seasonal variation, due primarily to the very small volume of advertising on the air at that time. Morning also presents less in the way of seasonal fluctuation than does evening. This is explained by the concentration of food, household supply, and cosmetic accounts in the morning hours, all of which are especially regular broadcasters.

Individual station experience with regard to the degree to which morning, afternoon, and evening hours are used for broadcast advertising tends closely to approximate the network situation. Evening presents the greatest volume, morning is second, and afternoon a very poor third. Of forty-five station managers furnishing data regarding the relative degree to which morning and afternoon hours were used for broadcast advertising,[12] 82.2 per cent specified the former as possessing the greatest amount of commercially sponsored hours, 13.3 per cent the afternoon, while 4.5 per cent stated that there was no appreciable difference between the two periods. The degree to which morning business exceeded that of the afternoon varied greatly between stations, though the general tendency seemed for the morning volume to be approximately two-thirds greater. The median for the degree of morning superiority of advertising volume was 67.5 per cent and the arithmetic average 64.2 per cent for the twenty-six stations furnishing information on this point.

Though no definite trend was noted by station executives with regard to the relative rate of growth of daytime and nighttime business, a number of interesting individual variations were revealed,[13] indicating clearly that the trend in this respect depends upon factors such as the type of station—whether large or small, network, or non-network—local reception conditions, and similar matters. Most of the 5,000-watt stations stated that, within recent years, daytime business had increased more rapidly than had evening advertising volume. The chief reason mentioned for this trend was the fact that the evening hours had been sold previously and that no desirable ones were available any longer. The same general tendency was indicated by the 500- and 1,000-watt stations, though here the comparative recency with which they had joined the network possessed considerable bearing upon the trends taken by their business. In the case of the more recent affiliates, the volume of evening business tended to rise faster than daytime advertising, largely due to the fact that network advertisers were just beginning to use the station as one of their outlets. A number of small non-network stations not only experienced a greater proportionate daytime growth in advertising volume but found these hours actually preferred by local sponsors because they were unwilling to have their programs compete with the more spectacular network evening presentations.

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[12] The question asked was: "Which is the greater and by approximately how much, your volume of morning or afternoon commercial broadcasting time? Which of the two has increased the most rapidly during the past year?" See Appendix B.

[13] "Which has increased the more rapidly during the past year, your day or night business? Why in your opinion?" See Appendix B.

A discussion of the principal trends regarding the use of radio broadcasting for advertising purposes at different seasons and on different days and hours having been presented, it remains to evaluate the soundness of current practice in this respect. It seems doubtful that broadcast advertisers have made full use of the various times at which radio broadcasting facilities could be used profitably for conveying their sales message to the listening public. Summer broadcast advertising has not been engaged in to the full limit of its potentialities. This is due partly to the normal seasonal decline in all advertising, partly to the belief that the summer listening audience is sufficiently smaller than the winter one to warrant the discontinuance of the broadcast advertising program, and partly to a memory of the unsatisfactory reception experienced by summer listeners during the early years of broadcasting.

Several observations may be presented counter to these opinions. In the first place, there is reason to believe that the summer decline in the size of the listening audience is by no means as great as usually believed. Field studies in the Philadelphia area have indicated that the summer audience is, on the average about 90 per cent as large as that of other seasons; and that even during a late July or early August week-end—when the audience reaches its lowest point of the year—there are approximately 80 per cent of the set owners remaining as a potential audience for the commercial sponsor's presentation.[14] This same tendency is confirmed by studies made in other areas. It must also be remembered that the summertime is one of the best seasons for reaching the farm population of the country, both from the viewpoint of accessibility and because it immediately antedates the post-harvest buying season. It also is doubtful whether the practice of taking vacations away from home is as prevalent in small towns as it is in the larger urban centers, so that this portion of the radio audience will tend to shrink less in the summertime than will that of a city such as Philadelphia.

In addition to the question of the size of the audience, it should be remembered that the discount received by the advertiser on a 52-week contract is sufficient to pay for a large portion of his summer broadcasting time charges.[15] It is true that the talent still has to be paid for the additional programs and that this may amount to more than half of the total broadcasting expense. Nevertheless, the time-discount factor looms sufficiently large in number of dollars to be worthy of careful consideration. A counter-argument might be presented in the fact that continued broadcasting throughout the entire year will tend to burn out the talent and cause the program to lose its appeal at an early date. With regard to certain types of broadcasts this factor may possess some validity. However, it can be overcome without too great difficulty by the presentation of a special program, designed particularly for the summer audience. Not only would this ease the strain on the regular talent, but it might allow important savings by the substitution of lesser-known artists.

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[14] See chap. iii for details regarding the summer audience.

Moreover, there are certain types of industries, many of them important users of broadcast advertising, to whom continuity of effort during the summer months is of especial importance. Chief among these is the convenience goods field, including articles such as groceries and foodstuffs, cigarettes, and cosmetics, which enjoy comparatively steady sales at all seasons, and with respect to which the relatively low degree of consumer insistence regarding particular brands necessitates continuous sales and advertising effort. Another similar class of goods includes articles whose consumption increases in the summer months. Ice cream, soft drinks, sunburn lotion, and other summer pharmaceuticals, sporting goods, resorts, hotels, and transportation services—all experience increased volume of business during the summer, and can therefore benefit by broadcast and other advertising during that period. A third category of goods to which continued broadcast advertising during the summer is of importance includes the larger and more expensive specialty goods, such as automobiles, where the final purchase is the result of long deliberation rather than sudden impulse. Here the manufacturer's advertising must ever be at hand to direct the prospective buyer's thoughts toward his own product and brand. Likewise, retail institutions, to whom continuity of effort is of great importance because of the necessity of building up and holding consumer loyalty, should find the continuation of summer broadcast advertising especially helpful.

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[15] The time discount on a 52-week contract is 15 per cent, while a 26-week contract on NBC carries 5 per cent discount. Extending the broadcast through June, July, and August will cost merely half of the normal additional time charges.

Finally, since it takes a number of weeks before an audience can be built up for a new program, summer broadcasting lays the groundwork for the winter listening group and, by so doing, adds greatly to the effectiveness of the main sales effort.

A question also may be raised as to whether the broadcast advertiser is making the most of his opportunities on Saturday and Sunday. Here the problem is more involved than in the case of summer broadcasting, the final solution varying with individual localities and depending upon factors such as the season, the area to be covered, and the portion of the public to be appealed to. There also is the problem of whether the broadcast advertiser wishes to compete with programs such as the broadcasts of the New York Philharmonic Orchestra and the religious services which are broadcast over many individual stations on Sunday morning. It is probable that it may be well to refrain from commercial effort on Sunday morning, and not to compete too strongly with the outstanding sustaining broadcasts in the afternoon. The final answer to this question depends largely upon the type of program broadcast; and it may be that, by the exercising of ingenuity in this field, new commercial program forms may be produced that will be especially appropriate to Sunday daytime broadcasting.

Saturday broadcast advertising permits an even less definite answer than in the case of Sunday. Where immediacy of response is desired, the Sunday interruption to retail activity constitutes a definite handicap. On the other hand, there is reason to question the opinion that the Saturday audience is so much smaller than that of other days, field studies tending to indicate a very small decline in number of listeners as compared with the rest of the week. There may be a question as to the best type of program for Saturday night, especially in view of the prevalence of entertaining at home. Under such conditions a broadcast which will constitute a pleasant background for conversation or bridge, or which will make possible dancing, may be the most desirable. A well-constructed, short, and vivid commercial announcement will serve to give sales value to a program of this type. It is quite probable that Saturday night is not quite as satisfactory a time as other evenings, but it is still sufficiently so to be worthy of serious consideration on the part of the broadcast advertiser.

With regard to the time of the day, the afternoon hours constitute an almost unlimited field of development for the broadcast advertiser who is interested in the female listening audience. Research shows that the afternoon audience is generally comparable in size to that of the morning hours, so that there is no problem in this respect. Moreover, there is not as much distraction afforded by housework in the afternoon as in the morning. The heavier duties have been completed, lunch is over, and the housewife desires relaxation. Though she probably is completely uninterested in hearing any more concerning recipes and household hints, the average woman may be highly desirous of entertainment at this period of the day. Consequently, a restful semi-classical concert, popular music done in recital rather than dance style, or an interesting dramatic sketch with sufficient romantic appeal should be very well received. In the rare cases where this reasoning has been followed, the results attained have been uniformly successful. The program in one instance accomplished even more satisfactory results than it had when broadcast over the same stations during the evening hours. Careful study as to the most desirable types of programs for afternoon broadcasting is required before the potentialities of this period of the day can fully be utilized. Until any great volume of afternoon advertising has been built up, the pioneer in this field will have the added advantage of having little competition from the programs of other products or brands.

Likewise, a great deal remains to be done with regard to the most effective utilization of the morning hours for broadcast advertising. The latest development in this field is an increasing appreciation of the advertising value of the early morning hours, especially from 7:45 to 8:30 o'clock. This period lends itself to news broadcasts, shopping periods, and entertainment. In the case of one station, a coal company, broadcasting from seven to eight o'clock in the morning, with inferior talent, secured enough orders in the first six days to pay for its entire 26-week radio contract. Educational programs have been found to be very successful during the eight to half-past eight period by station WMAQ, Chicago.[16] These programs were broadcast directly from classrooms at the University of Chicago, and were accorded a splendid reception by the more cultured listeners, who tuned in on them prior to leaving for work. This again indicates the potentialities of the early morning period if the right kind of program is presented.

There still is a great deal of reluctance on the part of broadcast advertisers to experiment in daytime broadcasting. This is especially true with regard to the afternoon, most agencies admitting quite willingly the possibilities of that period of the day, but confessing a reluctance to recommend an afternoon broadcast to their clients. There are other agency executives who are skeptical as to the value of all daytime broadcast advertising, claiming that the number of women listeners is greater at night than in the day, and that, in the case of many articles, both the husband and wife must be won to the purchase. However, there are many other products with respect to which it is necessary only to reach the woman listener. Here the possibility of a specialized appeal, as well as less stringent program competition during the morning and afternoon hours, constitute added inducements to daytime broadcast advertising. A great deal of experimentation is still necessary with regard to the most effective use of daytime broadcasting by advertisers. Its potentialities, however, seem to be well worth the effort.

In addition to the fundamental question of the variations in the amount of broadcast advertising during different seasons, days of the week, and hours of the day, two minor problems, closely related to these broader aspects, require consideration. The first of them is the degree to which the same program is broadcast more than once during the day, while the second relates to the practice of broadcasting on more than one day during the week.

The repetition of the same program at a second hour was introduced to broadcasting by the Pepsodent Company in the fall of 1929. Originally this concern had broadcast "Amos 'n' Andy" at eleven o'clock at night. The program later was shifted to seven o'clock in order to reach a larger portion of the eastern audience. This move, however, aroused a tremendous storm of protest from middle-western listeners, who now were prohibited from following the doings of their favorite comedy pair by reason of the difference in time between the east and their own part of the country. As a result of this protest, it was decided to present the program twice during the same night, broadcasts being scheduled for seven and half-past ten o'clock, respectively. The later period was finally shifted to eleven o'clock, where it has remained ever since then.

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[16] Miss Judith Waller, educational director, Mid-western Division NBC; also vice-president and general manager Station WMAQ, Chicago.

The success of the Pepsodent venture in overcoming the time differences existing between various sections of the country prompted other companies to follow its example. In November, 1932, thirteen concerns were repeating their programs at different hours of the day. Five of them were broadcasting their original morning program, either at a later morning hour or during the afternoon, while four companies were following a similar practice with regard to afternoon programs. Four other companies, broadcasting their programs between seven and nine o'clock at night, repeated their presentations usually at eleven o'clock or just preceding that hour. In all cases the companies engaging in this double broadcast advertising effort were large manufacturers of convenience goods enjoying nation-wide distribution.

The trend toward the presentation of a program on more than one night a week first came into evidence in the latter part of 1929 and early months of 1930. It rose to prominence during the fall of that year and increased rapidly throughout 1931, receiving considerable impetus from the growing popularity of the so-called comedy and dramatic strip, which was ideally suited for daily broadcasting. In November, 1932, a total of forty-five companies, comprising approximately 15 per cent of all program sponsors, were broadcasting programs which were presented on more than one night of the week. Eleven of the companies were broadcasting twice a week, eleven others three times a week, while three concerns were presenting programs four times a week. Fourteen companies were broadcasting five times a week, and six others were offering their presentations six nights weekly. Dramatic programs, either for children or adults, including both comedy sketches and straight dramatic presentations, comprised approximately one-half of the programs broadcast in this fashion. Fifteen of the programs were presented prior to twelve o'clock noon; eleven in the afternoon, especially after half-past four o'clock; and nineteen after six o'clock at night. The advantage of this type of program lies in its repetition, which serves to impress the advertising message more firmly upon the consciousness of the listener, as well as to build up a more loyal audience than that commanded by the average weekly broadcast. However, its use raises other important program problems, which lie primarily in the field of program technique.

CHAPTER XI

PROGRAM PRACTICE: TYPES OF PROGRAMS BROADCAST OVER NETWORK KEY STATIONS

The question of the types of programs broadcast by networks and individual stations is of fundamental importance to an understanding of the use of radio broadcasting as an advertising medium in the United States. The entertainment and helpful information derived from hearing programs is the basis of the utility of radio to the listener. With reception problems mastered to a degree sufficient to insure satisfactory listening conditions to the great majority of the public, the program becomes the most important single factor in building listener circulation. Because of its direct bearing upon the size of the audience and listener response received, the program is a matter of greatest interest to the advertiser. Moreover, since the program service rendered by a broadcasting system is the only justification for its existence, an analysis of the types of programs furnished the listener is necessary to an evaluation of the extent to which American broadcasting is fulfilling the public interest.

The approach to this question will be primarily from the viewpoint of the national networks. Moreover, since the network key stations[1] are representative of the highest level of general program development in this country, special attention will be given to their program practice. Both commercial and sustaining programs[2] will be considered because of the close relationship which exists between them. Programs broadcast during the second weeks of February, May, August, and November[3] have been selected for analysis in so far as they have been deemed most typical of the broadcasting year. Key station data will be supplemented with information regarding the degree to which network programs are broadcast by the various affiliated stations, as well as by studies of regional network and individual station program practice. Program analyses have been given for combined networks only, so as to present trends in simple summarized form and to avoid the inclusion of competitive data which would have required lengthy explanation to insure its proper evaluation and would have added little of practical value to the discussion.

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[1] The key station of the NBC Red network is WEAF, New York; of the NBC Blue network, WJZ, New York; and of the Columbia System, WABC, New York.

[2] A commercial program is one sponsored and paid for by an advertiser, while a sustaining program is presented under the auspices of the network or station itself, and for which it bears the cost.

[3] November and February are typical of the winter broadcasting season, May of the spring decline, and August of the seasonal low ebb of commercial broadcasting.

Any classification of programs is necessarily arbitrary, since programs do not group themselves into distinct and mutually exclusive categories with ease and simplicity. Many programs are hybrid in nature. The question therefore arises as to what basis can be employed in classifying them, especially where one program contains several types of entertainment. Here two alternatives present themselves. The first is to break programs into their component parts and to tabulate the proportion of time devoted to each kind of entertainment contained within it. The final summation therefore represents the proportion of time devoted to various kinds of entertainment, regardless of whether the items tabulated comprised a complete program entity or merely a portion of a program. The second method is to classify programs as to their dominant characteristics—dance music, drama, or whatever it may be—and to tabulate the number of hours devoted to various types of programs. The latter method has been employed in the present instance in so far as it is believed to be the most logical one, where the data are to be used in an evaluation of program service to the listener. After all, the listener tends to tune in on programs as a whole, and not merely to seek out certain parts, shifting from one program and station to another in most rapid succession.

The classification of programs which has been used as the basis for analysis is as follows: (1) classical music, (2) semi-classical music, (3) folk music and ballads, (4) variety music, (5) popular music, (6) a summation of the total proportion of time devoted to music programs, (7) children's programs, (8) comedy broadcasts, (9) other dramatic programs, (10) children's educational programs, (11) adult educational programs, (12) news, market, and weather reports, (13) religious broadcasts,

(14) sports broadcasts, (15) special features of public interest, (16) international broadcasts, (17) women's feature programs, (18) variety programs, and (19) farm programs. This classification was based upon a careful analysis of similar classifications used in previous investigations,[4] and finally was decided upon as the most satisfactory one which could be used in depicting American conditions.

The exact construction which has been placed upon the various classes of programs is of interest. Classical music has been strictly interpreted on the basis of the inherent value of the compositions as accepted in musical circles. Inclusion has been made of popular classics, which, though hackneyed from constant repetition, nevertheless possess sound musical value. Examples of these are Rachmaninoff's "C Sharp Minor Prelude," and the overtures of Rossini. Semi-classical programs have been interpreted as those made up of music of the Victor Herbert type. Folk music and ballads include only American folk tunes, such as cowboy songs, hill-billy tunes, and the melodies of Stephen Foster. Foreign folk music has been placed in the semi-classical group. A Hungarian gypsy dance is viewed as being either classical or semi-classical music by an American listener rather than as folk music. World War melodies, such as "Keep the Home Fires Burning" also have been included in the folk music group.

Variety music is less definite as a classification. It is made up primarily of programs wherein varying types of music have appeared to such a degree as to make it impossible to classify the program as belonging to any one of the other types. Combinations of classical and popular music constitute an example in point. Popular music includes current dance tunes and song hits, and requires no discussion at this point.

Children's programs comprise broadcasts directed principally to child listeners. They are almost entirely dramatic presentations, and include programs such as "Skippy," the "Lone Wolf Tribe," and the "Kellogg Singing Lady." Comedy programs comprise periods such as "Amos 'n' Andy," the gossip of "Clara, Lu 'n Em," and the tomfoolery of the "Sisters of the Skillet." They, also, are almost entirely dramatic in nature, though inclining at times toward the vaudeville patter type of act. Dramatic programs include all types of drama other than those mentioned previously. The classification of children's educational programs consists primarily of presentations such as those of the American School of the Air. The Damrosch Friday morning concerts have not been included in this category, since their following is so much wider than merely in the schools and among young people. They therefore have been considered as part of the classical music broadcasts of the networks. Adult educational programs consist primarily of short talks on interesting subjects. Series of talks such as "Devils, Drugs and Doctors," by Dr. Howard W. Haggard, well-known medical authority, the political analyses of William Hard and Frederick William Wile, and broadcasts of the National Advisory Committee on Radio in Education are included in this category.

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[4] Program classifications used by Hettinger, Riegel, and Starch in their radio research, as well as the classification used by the International Radio Union, Geneva, Switzerland, were used as the basis for the present classification. Network research executives likewise were consulted. The satisfactoriness of the classification is witnessed by the closely comparable results derived by it as against the few existing network tabulations.

News, market, and weather reports require no comment. Religious programs mostly comprise devotional periods, the broadcasts of Dr. Harry Emerson Fosdick and the Rev. S. Parkes Cadman, and the programs of the Columbia Church of the Air, constituting examples of this type of endeavor. Sports broadcasts are either actual eye-witness accounts or reports and analyses of contests. Special features of public interest include items such as the broadcasts of the President of the United States, pick-ups of public meetings and important public gatherings, special programs by visiting foreign dignitaries, and stunt broadcasts such as those made from a moving train or the broadcasting of the sounds created by electrons.

International rebroadcasts include all programs received in this country from overseas by means of short-wave transmission and rebroadcast to American listeners. Women's features include programs addressed particularly to women listeners and largely comprise matters such as recipes, beauty helps, and household suggestions. Variety programs are primarily novelty programs where several forms of entertainment, musical and non-musical, have been combined in one period in such proportions as to make it impossible to classify the program under any other category. Programs of the Ed Wynn and Eddie Cantor type are examples in point. Farm programs are those addressed primarily to rural audiences, the only one of these broadcast over a New York key station being the National Farm and Home Hour on WJZ.

Before entering into a discussion of program trends in recent years, brief mention should be made of the types of programs broadcast in the early years of radio. The first program broadcast over a station regularly in operation was the Harding election news, sent out by KDKA, Pittsburgh, on the night of November 2, 1920. Later in the year KDKA began the regular broadcasting of Arlington time. It also carried the first church service to be sent out on the air. This program was broadcast from the Calvary Episcopal Church, Pittsburgh, in 1920, and, in addition to being the first church service presented by a radio station, was also the first program broadcast from a point other than the station's own studios. In 1921 KDKA added to its list of attractions addresses by members of Congress, market and weather reports, and, in August of that year, broadcast the Davis Cup tennis matches held at the Sewickley Country Club. In the same year, station WJZ, New York, presented the first broadcast of the World's Series baseball games, and KYW, Chicago, the first radio pick-up of the Chicago Civic Opera Company.[5]

It is interesting to note some of the programs which were broadcast over station WJZ during the period May 15—December 31, 1923. Out of 3,426 programs, 670 were vocal solos, 391 instrumental solos, 723 talks, 205 bedtime stories, 7 operas, 67 church services, 14 Philharmonic Stadium concerts, 49 programs broadcast direct from theater stages, 106 concerts from the Wanamaker store, and 21 athletic contests, in addition to numerous other types of programs.[6]

The rise of the national network companies provided the necessary financial and technical resources for the construction of programs of higher quality and greater variety. Moreover, this same development made it possible to carry to the American public presentation originating in the great talent centers of the country. Thus the rise of the national network lent great impetus to program development. The trend in network program service, as reflected in the proportion of hours devoted to various types of programs broadcast over the key stations of the National Broadcasting Company Red and Blue networks, and the Columbia Broadcasting System during the second weeks of February, May, August, and November, 1927–32, is found in Table XXXII.

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[5] *This Thing Called Broadcasting*, by Goldsmith and Lescaboura (Holt), pp. 99–101.

[6] *Ibid.*

The proportion of hours devoted to the broadcasting of classical music has varied only slightly since the beginning of the networks. In so far as the number of hours broadcast by network key stations has increased appreciably since 1927, the percentage of time devoted to music of this type today represents a larger absolute number of hours than it did in the early years of radio. This is especially true prior to 1929, since which time there has been relatively little change as to the number of hours per week during which programs are presented.[7] The result of this factor has been that, in the spring of 1932, approximately eight and one-half hours of classical music were broadcast each week as compared to about five and one-half hours in November, 1929. Moreover, the quality of the classical music broadcast has increased appreciably. Today, for the first time, the four greatest musical organizations in the country are on the air with a reasonable degree of regularity: the Metropolitan Opera Company, the New York Philharmonic Symphony Orchestra, the Philadelphia Orchestra, and the Boston Symphony Orchestra. With the exception of the Philadelphia Orchestra, all of them broadcast on a regular weekly schedule.

The low proportion of classical music broadcast in the second week of November, 1932, should be interpreted with care, since it probably is not representative of the situation during the 1932–33 season. Due to the disturbing factor of the Presidential campaign, the network program schedule was considerably upset and the completion of the normal weekly program structure delayed. Consequently a higher percentage of classical music quite probably would be revealed if an analysis were made of programs broadcast during February, 1933.

There has been a marked decline in the proportion of semiclassical music broadcast over the network key stations ever

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[7] Prior to November, 1929, the average number of hours broadcast per week by key stations was in the neighborhood of 80, increasing to 119 in November, 1929. Since then there has been little change, the number of hours ranging between 119 and 126.

TABLE XXXII

PROPORTION OF VARIOUS TYPES OF PROGRAMS BROADCAST OVER KEY STATIONS OF NATIONAL NETWORKS DURING THE SECOND WEEK OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, ANNUALLY, 1927–32
(Average NBC Red, Blue, and the Columbia Broadcasting System networks)*

Type of Program	Percentage of Hours of Various Types of Programs																						
	1927				1928				1929				1930				1931				1932†		
	Feb.	May	Aug.	Nov.	Feb.	May	Aug.	Nov.	Feb.	May	Aug.	Nov.	Feb.	May	Aug.	Nov.	Feb.	May	Aug.	Nov.	Feb.	May	Nov.
Classical music	9.4	5.2	6.4	7.0	9.3	10.3	11.1	8.0	3.0	10.1	7.6	4.6	8.4	8.5	7.7	9.3	10.0	7.1	10.0	7.7	6.6	7.5	4.9
Semi-classical music	24.2	21.9	18.9	25.2	21.4	24.4	24.5	17.0	21.8	19.3	15.3	14.2	17.8	16.5	18.9	14.6	12.6	15.4	13.4	12.0	14.4	12.3	10.6
Folk music and ballads	0.9	5.2	6.8	5.1	6.6	4.5	7.9	7.5	9.1	6.4	4.6	3.9	1.3	2.3	3.0	3.7	2.8	3.6	3.9	3.0	3.4	5.3	1.0
Variety music	0.3	8.5	5.2	9.1	5.0	4.7	5.4	3.6	8.2	3.7	4.9	5.5	4.8	4.6	5.3	5.0	7.2	5.9	4.5	4.2	3.1	5.3	2.0
Popular music	36.5	32.8	38.8	25.1	29.5	22.0	23.3	21.2	28.5	32.9	36.1	36.7	31.5	31.5	32.7	27.6	28.1	29.5	37.3	33.8	39.3	37.2	42.9
Total music	71.3	73.6	76.1	71.5	71.8	65.9	72.2	57.3	70.6	72.4	68.5	64.9	63.8	63.4	67.2	60.2	60.7	61.5	69.1	60.7	66.8	67.6	61.4
Children's programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.1	0.4	0.4	1.8	1.7	1.8	1.4	1.8	1.5	1.4	2.7	2.9	2.4	3.4
Comedy broadcasts	.....	2.1	0.2	0.7	0.6	1.2	1.0	1.9	1.6	1.3	1.6	1.3	1.4	1.2	1.7	1.4	3.3	3.2	3.7	4.7	3.4	3.6	4.1
Other dramatic programs	1.9	2.4	1.4	0.7	2.1	2.2	3.4	3.9	3.2	3.6	4.6	4.9	5.1	5.3	6.0	5.5	5.8	7.4	5.2	5.5	5.1	5.0	4.9
Adult educational programs	10.2	5.9	7.0	9.7	9.9	13.9	9.8	11.8	8.5	9.6	6.9	7.1	8.5	7.4	5.7	6.3	6.9	4.8	4.1	5.0	5.4	5.7	3.6
Children's educational programs	0.9	0.7	0.8	.....	0.8	1.8	2.1	2.2	2.5	1.7	1.1	1.7	0.4	0.3	.....	0.9	0.7	.....	.....	0.7	0.6	.....	0.8
Farm programs	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.3	1.2	1.3	1.7	1.8	1.6	1.7	1.7	1.8	1.6	1.9
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.1	0.1	0.3	0.4	0.1	0.1	0.1	0.1	0.7	0.4	0.3
News, market and weather reports	5.2	1.8	2.5	3.3	1.9	3.2	2.6	1.6	1.6	2.1	1.9	1.7	1.6	3.7	3.4	2.5	2.2	2.0	1.5	1.4	1.3	1.2	1.5
Religious broadcasts	4.2	5.2	2.9	2.8	3.9	3.4	2.1	3.4	2.9	2.6	2.9	3.4	2.6	3.1	2.6	3.3	3.7	2.4	2.5	1.9	1.2	1.3	0.5
Sports broadcasts	0.3	2.4	3.4	3.9	.....	0.2	0.1	3.7	0.6	0.1	.....	2.6	0.1	0.3	0.2	2.4	.....	0.1	0.2	2.7	0.1	.....	2.6
Special features of public interest	0.3	1.6	.....	3.7	3.2	3.3	2.4	8.9	2.5	1.3	0.4	1.2	0.9	1.0	0.2	2.3	0.7	0.3	.....	0.8	0.3	0.1	2.7
Women's feature programs	1.5	1.6	1.5	0.8	1.9	1.6	2.5	3.0	5.0	3.6	5.5	6.1	5.8	4.5	4.1	5.6	4.9	6.2	5.6	5.3	3.4	4.1	2.7
Variety programs	4.0	2.7	4.2	2.9	3.9	3.3	1.8	2.3	1.0	1.6	6.2	4.7	6.6	6.8	5.8	6.1	7.4	8.9	4.9	6.8	7.0	7.0	9.6
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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* Source: NBC and CBS program records.

† August, 1932, is missing because of limitation of time with respect to the tabulation of the data.

since 1929. Though this type of music still ranks second in the amount broadcast, it comprises no more than half of the proportion of total hours broadcast as compared with 1927 and 1928. No definite trend is indicated with respect to folk music and ballads. This type of entertainment reached its peak in the winter of 1928 and spring of 1929, following which it declined until the spring of 1932. At that time there was a brief increase, which soon died out. This latter rise in folk music differed from that broadcast in the earlier period, in that it consisted almost exclusively of cowboy and hill-billy tunes, whereas the earlier programs in this field were comprised of the old songs familiar to everyone.

Variety music not only is difficult to classify but also requires great care in its interpretation. Though the proportion of such music has remained comparatively the same during the period under consideration, the type of variety music has changed radically. The variety program of the early days of network broadcasting was made up largely of classical and semi-classical music with an occasional popular ballad thrown in. This type of program began to pass from the picture about 1930. Since then it has been supplanted almost completely by a form of program which consists primarily of popular music rendered in concert fashion, combined with occasional classical numbers.

The proportion of popular music has increased less in comparison with other forms of programs than might be expected. With the exception of 1928, when it was at low ebb, there has been little change in the percentage of hours devoted to popular programs, until quite recently, when a slight increase has occurred. It is interesting to note that the 1928 low point in popular music broadcasts coincided with the period during which advertisers were convinced that goodwill engendered from classical concerts was the factor in radio from which the greatest benefit could be derived.

It also must be remembered that, during the period under consideration, popular music itself changed greatly. Early programs in this field consisted entirely of music played for dancing purposes. Later, orchestras began to develop distinctive tempos and forms of presentation in an endeavor to win the interest of the listener who was not concerned with dancing. Orchestras, such as that of B. A. Rolfe and the banjo ensemble of the "Cliquot Club Eskimos," came to be known throughout the country and to be among the most popular programs broadcast.[8] Continually greater novelty was introduced in the presentation of popular music. Orchestration and distinctive arrangements became increasingly important, with the result that new aspects of melodic and harmonic development found their way into popular music. Soloists also were added to the dance band itself. By 1931 the popular music program presented a vastly more sophisticated and musically superior presentation than did that of the first years of network broadcasting.

In this development, radio benefited greatly from the general trend which was taking place in the field of popular music. The extreme rhythms of the immediate post-war period were being discarded in favor of better melody and more subtle rhythm. This trend was given added impetus by the return in popularity of the costume operetta, such as "Blossom Time" and "The Student Prince"; the vogue for a concert rendition of popular music established about that time by Paul Whiteman; and the compositions of George Gershwin, which served to lend an aura of musical respectability to certain aspects of popular music.

However, radio not only benefited from the general trend in popular music but also probably exerted an important influence on the rate and extent of its development. The necessity for introducing distinctiveness and novelty into popular programs broadcast over the radio undoubtedly caused many musicians in the field to devote greater attention to questions of presentation and arrangement than otherwise would have been the case. The reward for distinctiveness was greatly increased by the advent of broadcasting, while the penalty imposed in the way of reduced acceptance of both compositions and orchestras where distinctiveness was missing likewise was made more severe. Thus it seems that radio broadcasting, while dependent upon popular music for at least some measure of its public acceptance, has also exerted a beneficial constructive influence upon the quality of that form of music.

This influence has not been without some drawbacks, for it has included, among other items, the development of the crooner. Since crooning technique has its foundations in musical imperfection—that of sliding into a note rather than striking it true on the first attack—it can hardly be said to be an improvement in the art of singing. The real success of crooning has been not in its musical aspects, but in the personal touch and atmosphere of romantic intimacy which the crooner has been able to build up through his distinctive delivery. It is quite possible that the same intimacy can be achieved by other artists without a wholesale distortion of the musical scale. Another difficulty of popular music, namely, the tendency for it to concentrate at the hours of the day when the greatest audience is available—sometimes at the expense of other types of programs—will be discussed when the question of variations in program service during the morning, afternoon, and evening periods is considered in detail.

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[8] In December, 1928, "Cliquot Club Eskimos" ranked third, and B. A. Rolfe, fifth, in popularity among Philadelphia audiences (*A Merchandising Interpretation of Listener Reactions and Habits with Respect to Radio Broadcasting*, by Herman S. Hettinger, p. 39).

The proportion of total program hours devoted to strictly musical presentations is approximately 15 per cent less today than it was in 1927 and 1928. There was a sharp decline in the proportion of hours given over to musical programs in 1929, and, since then, this has remained comparatively unchanging. The number of hours actually devoted to musical programs has varied but little since 1929, and averages in the neighborhood of from 80 to 85 hours out of from 120 to 125 hours broadcast weekly. The proportion of total hours devoted to musical programs at the present time is slightly in excess of 60 per cent. This does not include quite all of the music broadcast, since there is a rather large amount of music to be found among the variety programs. This factor, however, is not sufficient to change the general trend to any important degree.

One of the forms of non-musical programs to have experienced the most rapid rise in recent years has been the children's program. No broadcasts, other than bedtime stories, were presented for children until the spring of 1929, while there was no marked trend in this direction until the fall of 1931. Since then there has been a steady growth in this form of program, which shows no signs of abating. Practically all of the programs in this field are dramatic offerings which have to do with the exciting, and often lurid, adventures of some youngster such as Skippy or Little Orphan Annie, or of boys' heroes, such as Captain Jack, the aviator. However, several programs, including the "Kellogg Singing Lady," the "Lone Wolf Tribe," and the "Adventures of Helen and Mary," strike a more restrained note.[9]

Comedy programs also are predominantly dramatic in form, though a number of them incline toward the vaudeville dialogue or patter. Amos 'n' Andy are the best example of the former, while Billy Jones and Ernie Hare, the original Happiness Boys, are typical of the latter.[10] The proportion of hours broadcast devoted to comedy programs increased with marked rapidity in 1931, and today stands at approximately twice that of 1930.

Other forms of dramatic programs have experienced a steady increase since the beginning of network broadcasting, and today are more important than either comedy or children's programs. The early programs in this field were straight dramatic presentations, often radio adaptations of well-known stage plays. Later, the homely drama, containing no small measure of humor, came into existence, and reached its greatest vogue in programs such as "Tomkins Corners," "Real Folks," "Seth Parker," and the "Country Doctor." The dramatized sketch, usually based on tales of history and adventure, came into prominence about the same time. Examples of this type of program include "Death Valley Days"—recounting stories of the western mining days and especially of the Death Valley country—"Roses and Drums" and "Great Moments in History," both of which feature dramatizations taken from American history. In the past several years the mystery and melodrama have come to the forefront. This trend was originated by the Sherlock Holmes program, and has come to embrace a large portion of the total dramatic programs broadcast. The "Adventures of Fu Manchu," and the "Eno Crime Club" are typical of this type.

Children's educational programs have tended to show a slight decline since 1929, but, on the whole, have maintained a comparatively steady proportion since their inception. Such decline as there has been in this field is due to the increased number of total hours of programs broadcast, rather than any marked decrease in the number of hours devoted to programs of this class. Broadcasts in this category are confined principally to the American School of the Air, though it should be kept in mind that the Damrosch Friday morning concerts, listed with classical music rather than in this group, likewise have a most important educational significance for children and adults alike. It is quite probable that this type of program will neither increase nor decline to any great extent, since network broadcasts of such programs necessarily are limited as to when they can be presented and the degree to which they can be adapted to the needs of varying curricula and methods of instruction.

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[9] Skippy and similar programs unvaryingly center about wild adventures with robbers and other villains of the deepest dye, and in the course of whose pursuit seemingly insuperable obstacles are overcome, usually with the assistance of the child hero or heroine. The "Kellogg Singing Lady" presents a vastly different type of program, consisting of songs which she teaches the children and stories which she relates. The "Lone Wolf Tribe" is built along adventure lines, but less in the style of Nick Carter and more of the American boy. The "Adventures of Helen and Mary" are dramatizations of well-known fairy tales.

[10] The Jones and Hare presentation, originally sponsored by the Happiness Candy Stores, and since then by Interwoven Socks, and later Hellman's and Best Foods Mayonnaise, is a typical vaudeville comedian presentation.

While adult educational programs have declined considerably in quantity, there has been a marked improvement in the quality and interest value of those remaining on the air. The reason for the large proportion of programs of this type broadcast in the 1927–28 period lies in the fact that talent was scarce and speakers easy to secure. Since then the public has grown weary of mere addresses, and new methods of presentation have had to be devised. The dialogue and dramatized version have been important contributions in this field, as has been the development of a better technique for the delivery of talks themselves. Throughout the entire range of educational programs, a saving measure of informality has been injected.

Especially noteworthy has been the work done in this field by the National Advisory Committee on Radio in Education, which at different times has produced series of programs in the fields of psychology, civics and government, economics, vocational guidance, and the labor movement. The most modern methods of presentation have been used in all of the programs, with a corresponding increase in listener interest. Other interesting programs in the same field include the one entitled "Our American Schools" under the direction of Miss Florence Hale, of the National Education Association, broadcast over the National Broadcasting Company's Red network, the Columbia Broadcasting System's Public Affairs Institute, and similar programs. Many progams not listed in this group, especially those appearing under the classification of news, drama, classical music, women's features, international rebroadcasts, and farm programs, also are highly important from an educational viewpoint. The adult educational value of radio broadcasting is extremely broad and cannot be measured by any mere method of classification of programs.

The broadcasts of news, market, and weather reports have decreased materially over network stations since 1927. This has been due to the almost complete deletion of news flashes and stock market reports from the network programs. At the present time network news broadcasting is confined to brief summaries, combined with editorial comments, such as those given by Lowell Thomas and Boake Carter. There is no reason why the network should concern itself in this field, since it enjoys no marked advantage over the individual station in this respect. In addition, the possibility of incurring the ill will of the newspaper profession through too strenuous competition in the dissemination of news would do the network a great deal of harm as far as its publicity was concerned. This may be an additional factor dictating a conservative policy with regard to the broadcasting of news flashes.

The proportion of hours devoted to religious programs remained comparatively steady until 1931 when a decline set in. This seems to have been due primarily to the withdrawal of a number of commercially sponsored religious broadcasts from the air. Likewise, there has been little change with regard to the proportion of time devoted to sports broadcasts. The variety of sports included has tended to increase, so that at the present time accounts of football and baseball games, tennis, polo and boxing matches, golf tournaments, track meets, and horse races are among the programs broadcast. A factor which may affect seriously the future development of this type of program is the attitude of the colleges and baseball leagues to broadcasts of their respective games. There has been a rather widespread opinion that broadcasting has hurt gate receipts in college football and professional baseball. Regardless of whether this has or has not been the case, the existence of such an opinion has given rise to a reluctance to broadcast contests on the part of a number of schools and clubs. At the present time, however, it does not seem as if the objections raised will make much headway. There also is reason to doubt the validity of the premise upon which they are based, in so far as the baseball teams of some cities have experienced marked success with the broadcasting of games.

International broadcasts are one of the most spectacular forms of program service rendered by networks, and have served to link together nations and continents in a manner that would have been inconceivable but a few years ago. International programs were first broadcast in 1930, and since then have increased steadily, though they probably always will remain a small portion of total network programs. Speakers brought to the American public by means of international rebroadcasts have included such distinguished figures as His Holiness Pope Pius XI, King George V of England, Prime Minister Ramsay MacDonald, President Hindenburg of Germany, the presidents of Austria, Switzerland, and the Irish Free State, King Albert of Belgium, former Chancellor von Papen of Germany, Winston Churchill, Guglielmo Marconi, Mahatma Gandhi, George Bernard Shaw, Leon Trotzky, and numerous others of international note. Opera and other musical programs have been rebroadcast from various parts of Europe. The technique and facilities in this field have been developed to a point where regular international rebroadcasting has been made possible. At the present time both national network companies are maintaining comparatively regular schedules of international features.

Special feature broadcasts are another of the particularly interesting categories of American program service, and constitute a feature of distinctive strength in the programs of this country. One of the most important groups of programs coming under this classification are the broadcasts by numerous members of the United States government. In 1931 the two national network companies broadcast approximately 530 hours[11] of speeches by government, state, or city officials. This totaled 478 programs, representing a time value of approximately $2,844,000. Though some of these appearances must be classified under either adult educational programs or farm broadcasts, the great majority of them fall into the category of special features. They constitute the most direct method thus far devised for bringing the members of the government directly before the people. During the past year the possibility of broadcasting the debates of the Senate was seriously considered by both the networks and the officials of that body, though nothing thus far has transpired in this direction. It may be that this would constitute too direct a contact between the people and their representatives.

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[11] *Commercial Radio Advertising*, Federal Radio Commission, pp. 17, 21.

Other special features of widespread interest and significance included the broadcasting of the two national political conventions, addresses by distinguished figures in various walks of life, broadcasts of important public events, and similar occasions. Though the proportion of this type of program declined in 1931, it again has increased. Today it is almost as high as it was during 1928 when programs of this kind reached their peak. The showmanship in current special feature programs is vastly superior to that of previous years, so that those which are presented contain a higher degree of public interest than at any time in the history of network broadcasting.

Women's features grew slowly during 1927 and 1928, rose rapidly in 1929, and constituted a relatively important portion of total program hours until 1932, when they declined. In so far as these programs are mostly broadcasts of recipes, household helps, child-care information, suggestions regarding interior decoration, beauty hints, and similar features, their decline may be due to the fact that American women are tiring of the repetition of these matters and are demanding more in the way of entertainment. However, it is too early to state whether or not this is the case.

Variety programs have shown a steady increase, due primarily to the attempt of advertisers to find distinctive ways of presenting programs consisting of dance music and vaudeville or musical comedy entertainers. The result has been the rise of the Ed Wynn type of program, which at present is at the height of its popularity. Whether it will continue in vogue for any protracted length of time, remains to be seen.

Farm programs have constituted a relatively unvarying proportion of program hours broadcast since 1930. Since these broadcasts are devoted exclusively to the "National Farm and Home Hour," presented over the National Broadcasting Company's Blue network, the trend regarding this form of program promises to remain an even one.

The differences which exist between the types of programs sponsored commercially and presented by networks on a sustaining basis constitute an important question with regard to an evaluation of the American radio program structure. It is claimed at times that it is the commercial program which constitutes the disturbing element in the program service furnished the listening public in this country. Granting the premise that a broadcasting system should furnish the type of program which the people enjoy and desire, this claim seems to be erroneous for the most part. This is indicated in Table XXXIII where it is revealed that the concentration of commercial programs upon certain types has not been enough to have the effect sometimes attributed to it.

In the field of classical music the commercial program has been weak since 1928, the proportion of commercial hours devoted to such presentations declining ever since then. The 1932 figure, however, must be interpreted conservatively—as was the case with regard to total classical music—in so far as some of the most important classical programs of that season were not broadcast until after the second week in November. The proportion of sustaining program hours devoted to classical music rose steadily until 1931, declining slightly during that and the following year.

Commercial broadcasts of semi-classical music have never been more than from one-third to one-half as much as sustaining programs of the same class, and have declined steadily since the outset. Today, only 2.0 per cent of commercial program hours are devoted to programs of this type. Sustaining programs have decreased more slowly in the semi-classical field. In the field of folk music the proportion of commercial hours devoted to entertainment of this sort always has been higher than with regard to sustaining programs. Both have experienced a comparatively steady decline, in spite of a brief return to popularity of commercially sponsored hill-billy music in the spring of 1932. Commercially sponsored variety music programs dropped considerably in 1931 and 1932, largely due to the passing of the classical-popular type of program. Sustaining programs of this sort have been of little importance.

It is interesting to note that the proportion of commercial program hours devoted to the broadcasting of popular music has always tended to be lower than with regard to sustaining pro-

TABLE XXXIII

PROPORTION OF COMMERCIAL AND SUSTAINING HOURS, RESPECTIVELY, DEVOTED TO PROGRAMS OF VARIOUS KINDS DURING THE SECOND WEEK OF NOVEMBER, 1927–32, BY THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS

Type of Program	Percentage of Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total
Classical music	16.2	4.6	7.0	7.9	8.1	8.0	0.6	5.9	4.6	6.4	10.4	9.3	2.7	10.6	7.7	0.1	6.5	4.9
Semi-classical music	25.7	25.1	25.2	7.9	20.5	17.0	9.6	15.7	14.2	3.5	19.3	14.6	6.9	15.0	12.0	2.0	13.5	10.6
Folk music and ballads	3.4	5.5	5.1	13.0	5.3	7.5	4.5	3.7	3.9	6.9	2.4	3.7	4.3	2.2	3.0	2.6	0.5	1.0
Variety music	18.8	6.6	9.1	8.4	1.8	3.6	6.8	5.1	5.5	9.2	3.3	5.0	4.5	4.0	4.2	3.9	1.4	2.0
Popular music	21.4	26.1	25.1	15.2	23.4	21.2	29.2	39.2	36.7	20.2	30.7	27.6	28.7	36.7	33.8	21.4	50.4	42.9
Total music	85.5	67.9	71.5	52.5	59.1	57.3	50.7	69.6	64.9	46.2	66.1	60.2	47.1	68.5	60.7	30.0	72.3	61.4
Children's programs	.....	.....	.....	.....	.....	.....	.....	0.6	0.4	1.9	1.2	1.4	3.0	2.6	2.7	9.2	1.3	3.4
Comedy broadcasts	1.7	0.5	0.7	4.6	0.8	1.9	3.4	0.6	1.3	4.5	0.1	1.4	8.9	2.3	4.7	10.0	2.1	4.1
Other dramatic programs	0.8	0.8	0.7	8.8	2.1	3.9	7.6	4.1	4.9	11.4	3.1	5.5	9.8	2.9	5.5	13.5	1.9	4.9
Adult educational programs	3.4	11.4	9.7	19.7	8.3	11.8	10.8	6.0	7.1	8.9	4.9	6.3	7.2	3.6	5.0	9.5	1.6	3.6
Children's educational programs	.....	.....	.....	0.8	2.7	2.2	2.3	1.5	1.7	1.9	0.5	0.9	0.1	1.1	0.7	.....	1.1	0.8
Farm programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.4	1.7	.....	2.8	1.7	.....	2.4	1.9
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.5	0.3	0.4	.....	0.1	0.1	....	0.4	0.3

TABLE XXXIII—*Continued*

Type of Program	Percentage of Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total
News, market and weather reports	.....	3.9	3.3	.....	2.3	1.6	.....	2.3	1.7	2.4	2.7	2.5	1.6	1.4	1.4	1.9	1.4	1.5
Religious broadcasts	.....	3.5	2.8	0.8	4.4	3.4	0.6	4.3	3.4	0.9	4.3	3.3	0.4	2.7	1.9	.....	1.9	0.5
Sports broadcasts	.....	4.8	3.9	0.4	5.0	3.7	0.6	3.0	2.6	.....	3.4	2.4	0.4	4.1	2.7	0.8	3.2	2.6
Special features of public interest	.....	4.6	3.7	.....	12.6	8.9	.....	1.6	1.2	.....	3.3	2.3	.....	1.3	0.8	1.1	2.4	2.7
Women's feature programs	1.7	0.7	0.8	7.1	1.4	3.0	17.5	2.3	6.1	12.9	2.5	5.6	12.0	1.5	5.3	7.4	1.1	2.7
Variety programs	6.9	1.9	2.9	5.3	1.3	2.3	6.5	4.1	4.7	8.5	5.2	6.1	9.5	5.1	6.8	16.6	6.9	9.6
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

grams. This is offset partly, since 1931, by the rise of the variety program which contains a large measure of popular music. This type of program increased from 9.5 per cent in that year to 16.6 per cent in 1932. Even adding this figure to commercially sponsored popular music still leaves the latter's percentage far behind that of sustaining programs in the same field. With regard to musical programs as a whole, the commercial group again lags behind that of the sustaining. The proportion of commercially sponsored musical programs has been declining steadily, having constituted 85.5 per cent of all hours devoted to commercial programs in 1927, 46.2 per cent in 1930, and 30.0 per cent in 1932. The proportion of sustaining program hours devoted to musical presentations has been increasing steadily in recent years.

Commercial children's programs increased rapidly since 1931, having represented 1.9 per cent of total commercial program hours in 1930 and 9.2 per cent in 1932. Sustaining programs in the same field showed no appreciable change during the period under consideration. Commercially sponsored comedy broadcasts also have increased to a marked degree, rising from 3.4 per cent in 1929 to 10.0 per cent in 1932, while sustaining programs of this type have increased but slightly. Dramatic programs broadcast by advertisers rose rapidly in 1928, increasing tenfold over the previous year, and since then have continued to increase steadily until they represented 13.5 per cent of commercial program hours in November, 1932. Sustaining dramatic programs have dropped gradually since 1929, and at present are but 1.9 per cent of total sustaining hours broadcast by key stations.

Since the withdrawal of the Grigsby Grunow Company from partial sponsorship of the American School of the Air, there have been no commercial programs in this field. Commercially sponsored adult education programs have been consistently higher than sustaining, probably due to the relatively steady number of commercial programs of the "Devils, Drugs and Doctors" and Angelo Patri[12] types, as compared to the small number of total commercial program hours. There were no news broadcasts commercially sponsored prior to 1930, while the proportion of such programs has declined steadily since the first year, though not as rapidly as sustaining programs of this type.

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[12] The former is an interesting series of discussions on the history of medicine and the latter of child-care problems, especially as they relate to older children of the school age.

Women's programs sponsored by broadcast advertisers constituted a larger proportion of total commercial hours in 1929 than in any other year. Since that time they have dropped from 17.5 per cent to 7.4 per cent in November, 1932. Sustaining programs in this program category have always been less in proportion to total program hours of that type, though their trend has been more steady.

In the field of variety programs, commercial broadcasts have been the most important and have increased to the greater degree. Religious programs which have been commercially sponsored have always been negligible in amount, while sports, special features, international rebroadcasts, and farm programs always have been the particular province of the sustaining program. Thus it seems that broadcast advertising has tended to concentrate more upon the following types of programs than have the networks themselves: folk music, variety programs, children's, comedy, and dramatic programs, adult educational broadcasts, and women's features. However, in terms of the proportion of total commercial hours devoted to various kinds of programs in November, 1932, popular music ranks first with 21.4 per cent; variety second, with 16.6 per cent; drama third, with 13.5 per cent; comedy fourth, with 10.0 per cent; adult educational programs fifth, with 9.5 per cent; children's programs sixth, with 9.2 per cent, and women's features seventh, with 7.4 per cent of the total commercial hours. No other program types are of any importance in the commercial group.

Because of the great differences which exist in the size of the radio audience at various times of the day, program variations in this regard are of especial importance in an evaluation of American broadcasting. General trends in this respect are found for the key stations of the three basic networks in Table XXXIV.

Major tendencies in this field are shown to be as follows: The morning hours are devoted primarily to broadcasts of classical and semi-classical music, comedy, children's educational programs, adult educational programs, religious broadcasts, and women's feature programs. Much of the classical music broadcast in the morning is concentrated on Sunday, though the re-

TABLE XXXIV

PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST DURING THE MORNING, AFTERNOON, AND EVENING HOURS, RESPECTIVELY, OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF NOVEMBER, 1927–32*

Type of Program	Percentage of Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening
Classical music	.....	3.5	9.9	4.0	7.4	9.4	2.3	5.8	4.8	5.6	10.0	11.0	7.5	11.8	4.8	4.7	6.6	3.5
Semi-classical music	10.7	22.8	27.6	12.3	18.2	17.2	12.9	10.5	18.5	16.2	18.7	9.6	10.8	16.0	9.8	15.2	12.9	5.7
Folk music and ballads	3.4	3.5	6.2	.....	7.4	9.1	2.0	4.4	4.6	1.9	4.1	4.4	2.7	3.9	2.3	0.5	0.8	1.5
Variety music	14.2	1.7	13.6	.....	1.1	6.5	2.9	4.8	7.9	1.1	5.7	6.7	7.2	2.9	3.5	1.1	2.2	2.4
Popular music	17.9	24.3	26.3	9.2	21.6	23.5	36.9	33.6	39.9	20.2	23.3	36.4	20.8	21.4	51.2	37.5	32.1	55.6
Total music	46.2	55.8	83.6	25.5	55.7	65.7	57.0	59.1	75.7	45.0	61.8	68.1	49.0	56.0	71.6	59.0	54.6	68.7
Children's programs	.....	.....	.....	.....	.....	.....	1.5	.....	.....	1.7	2.5	0.1	4.4	4.6	0.3	3.4	7.3	0.1
Comedy broadcasts	.....	.....	1.2	5.4	.....	2.5	0.5	.....	2.9	2.3	.....	2.0	5.3	0.2	7.6	3.4	5.6	3.2
Other dramatic programs	.....	.....	1.2	3.0	0.6	6.8	2.5	2.0	9.2	1.5	2.5	10.9	2.5	4.6	7.9	0.8	2.0	9.6
Adult educational programs	28.4	15.8	4.1	41.3	9.8	5.9	9.5	9.4	3.8	10.9	4.8	4.2	11.1	3.0	2.7	8.4	3.0	1.2
Children's educational programs	.....	.....	.....	4.0	3.8	0.4	2.6	2.4	0.3	.....	2.7	.....	.....	2.3	.....	0.3	2.2	.....
Farm programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.7	.....	.....	5.5	.....	.....	5.3	.....
International rebroadcasts	.....	.....	.....	.....	3.2	.....	.....	.....	.....	0.6	0.5	0.4	.....	0.2	.....	.....	0.9	.....

* Source: NBC and CBS program records.

TABLE XXXIV—*Continued*

Type of Program	Percentage of Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening
News, market and weather reports	.....	8.8	.....	.....	2.6	1.1	.....	3.8	1.1	.....	3.6	3.0	.....	2.3	1.8	.....	1.2	2.7
Religious broadcasts	14.5	4.6	0.6	5.4	6.5	0.4	4.9	4.8	1.1	5.6	2.7	2.5	3.9	2.4	0.4	2.3	2.0	0.6
Sports broadcasts	.....	9.6	0.3	.....	8.3	0.9	.....	7.5	.....	.....	6.6	0.1	.....	8.6	0.2	.....	7.0	0.4
Special features of public interest	.....	4.6	3.4	.....	9.5	11.4	0.8	2.0	0.6	1.5	4.9	0.7	.....	1.1	0.8	0.2	3.0	2.4
Women's feature programs	10.9	0.8	.....	15.4	.....	.....	13.9	5.0	1.6	21.6	0.8	.....	12.2	5.8	.....	9.5	0.9	.....
Variety programs	.....	.....	5.6	.....	.....	4.9	6.8	4.0	3.7	9.3	1.9	8.0	10.6	3.4	6.7	12.7	5.0	11.1
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

ligious programs are scattered throughout the week. The adult educational programs broadcast at this time of the day are of especial, though not exclusive, interest to women listeners. The only trends noticeable with regard to morning programs is a slight increase in popular music and decrease in religious broadcasts.

TABLE XXXV

COMPARISON OF THE PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST COMMERCIALLY AND ON A SUSTAINING BASIS OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE MORNING HOURS OF THE SECOND WEEK OF NOVEMBER, 1927–32

TYPE OF PROGRAM	PERCENTAGE OF HOURS OF VARIOUS KINDS OF PROGRAMS											
	1927		1928		1929		1930		1931		1932	
	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining
Classical music	.....	.....	7.6	.....	.....	3.2	.....	8.5	.....	11.5	.....	6.4
Semi-classical music	.....	13.7	.....	26.6	.....	16.9	.....	24.8	.....	16.6	.....	20.7
Folk music and ballads	.....	4.7	.....	.....	.....	2.8	3.2	1.3	0.8	3.8	.....	0.8
Variety music	67.0	.....	.....	.....	.....	3.9	2.5	0.5	5.7	8.1	1.0	1.1
Popular music	.....	22.7	.....	19.9	10.3	45.6	4.9	28.1	9.8	26.8	6.2	49.0
Total music	67.0	41.1	7.6	46.5	10.3	72.4	10.6	63.2	16.3	66.8	7.2	78.0
Children's programs	.....	.....	.....	.....	.....	2.1	4.9	.....	4.9	4.2	6.0	2.8
Comedy broadcasts	.....	.....	.....	11.1	.....	0.7	5.7	0.5	6.6	4.7	10.2	1.1
Other dramatic programs	.....	.....	5.7	.....	.....	3.4	2.5	1.0	4.9	1.3	2.1	0.4
Adult educational programs	.....	36.1	61.8	17.9	36.3	0.7	27.9	2.1	27.1	3.0	31.3	0.4
Children's educational programs	.....	.....	.....	8.7	6.4	1.4	.....	.....	.....	.....	.....	0.4
Farm programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	1.1	.....	.....	.....	.....
News, market and weather reports	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Religious broadcasts	.....	18.1	.....	11.1	.....	6.3	.....	8.4	.....	6.0	.....	2.8
Sports broadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Special features of public interest	.....	.....	.....	.....	.....	1.1	.....	2.1	.....	.....	.....	0.4
Women's feature programs	33.0	4.7	24.9	4.7	47.0	2.8	45.2	9.2	32.0	2.1	28.1	2.8
Variety programs	.....	.....	.....	.....	.....	9.1	3.2	12.4	8.2	11.9	15.1	11.9
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Afternoon hours show the greatest variety of programs broadcast. It is this time of the day that most classical and semi-classical music is broadcast. In the case of the classical music this is due largely to the afternoon programs of the New York Philharmonic Symphony Orchestra and the Metropolitan Opera Company. Children's programs tend to concentrate in the late afternoon hours. Other programs broadcast in appreciable amounts between twelve o'clock noon and six at night include: adult education, news, religious, sports, special features, international rebroadcasts, and farm programs. Trends in this respect indicate a slight increase in the proportion of afternoon time devoted to drama, semi-classical music, popular music and religious programs, with a small decrease in adult educational broadcasts.

TABLE XXXVI

COMPARISON OF THE PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST COMMERCIALLY AND ON A SUSTAINING BASIS OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE AFTERNOON HOURS OF THE SECOND WEEK OF NOVEMBER, 1927–32

Type of Program	Percentage of Hours of Various Kinds of Programs											
	1927		1928		1929		1930		1931		1932	
	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining
Classical music	50.0	3.2	.....	7.8	.....	6.3	10.5	9.9	10.8	12.1	.....	8.1
Semi-classical music	50.0	23.4	13.6	18.4	.....	11.3	6.9	20.2	5.5	18.8	.....	14.7
Folk music and ballads	.....	3.7	13.6	7.2	.....	4.8	3.2	1.3	12.0	1.8	4.2	0.2
Variety music	.....	11.8	26.4	.....	12.4	4.3	22.7	3.7	1.0	2.9	2.8	2.1
Popular music	.....	44.3	.....	22.5	6.3	35.2	5.2	25.6	2.4	19.1	19.3	34.0
Total music	100.0	56.4	53.6	55.9	18.7	61.9	71.6	60.7	53.3	54.7	26.3	59.1
Children's programs	.....	.....	.....	.....	.....	.....	3.5	2.4	7.6	3.8	40.1	1.5
Comedy broadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.3	22.5	2.5
Other dramatic programs	.....	.....	.....	0.6	.....	2.2	3.5	2.4	7.6	3.8	.....	2.3
Adult educational programs	.....	15.7	6.4	10.0	6.3	9.3	.....	5.4	1.0	5.5	4.2	2.8
Children's educational programs	.....	.....	.....	4.0	.....	2.6	14.4	1.3	.....	2.9	.....	2.5
Farm programs	.....	.....	.....	.....	.....	.....	.....	5.2	.....	7.1	.....	6.4
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	0.4	.....	0.3	.....	1.0
News, market and weather reports	.....	8.4	.....	2.8	.....	4.1	.....	4.1	.....	2.9	.....	1.3
Religious broadcasts	.....	4.5	13.6	6.3	6.3	6.3	3.5	2.6	2.2	2.4	.....	2.4
Sports broadcasts	.....	9.6	.....	8.7	6.3	7.6	.....	7.6	1.0	10.6	.....	8.6
Special features of public interest	.....	4.5	.....	9.4	.....	2.5	.....	5.4	.....	1.8	.....	3.6
Women's feature programs	.....	0.9	26.4	2.3	56.1	1.5	.....	0.8	23.9	2.4	.....	1.0
Variety programs	.....	.....	.....	.....	6.3	3.8	3.5	1.7	3.4	3.5	6.9	5.0
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Evening programs tend to concentrate on popular and folk music, drama, comedy, variety programs, and news. Popular music and comedy were increasing in November, 1932, while news was decreasing. A rather large proportion of the popular music broadcast at night comes after half-past ten o'clock at night.

A comparison of the proportion of commercial and sustaining hours devoted to programs of various types at different times of the day is found in Tables XXXV, XXXVI, and XXXVII.

Commercial programs tend to concentrate upon other than musical presentations during the morning hours. Women's features and adult educational broadcasts rank most important, together comprising almost 60.0 per cent of the total programs broadcast. In November, 1932, music comprised only 7.2 per cent of the commercial morning program hours, as compared with 77.0 per cent of the sustaining program time. Popular music consumed 49.0 per cent of sustaining time in the morning, semi-classical music 20.7 per cent, and variety programs 11.9 per cent.

TABLE XXXVII

COMPARISON OF THE PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST COMMERCIALLY AND ON A SUSTAINING BASIS OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE EVENING HOURS OF THE SECOND WEEK OF NOVEMBER, 1927–32

TYPE OF PROGRAM	PERCENTAGE OF HOURS OF VARIOUS KINDS OF PROGRAMS											
	1927		1928		1929		1930		1931		1932	
	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining
Classical music	16.5	6.6	8.7	9.8	0.9	7.6	8.6	12.5	1.4	8.2	.....	5.2
Semi-classical music	26.6	28.1	9.9	22.1	14.9	21.0	4.5	13.8	10.2	9.5	3.8	6.7
Folk music and ballads	3.6	7.5	16.9	3.9	7.0	3.0	4.1	4.9	3.4	1.3	3.4	0.5
Variety music	16.6	12.2	9.3	4.3	8.7	7.3	9.4	4.9	5.1	2.0	5.9	0.8
Popular music	22.9	28.1	21.2	25.4	40.4	39.0	31.1	39.7	37.9	64.2	21.4	68.7
Total music	86.2	82.5	66.0	65.5	71.9	77.9	57.7	75.7	58.0	85.2	41.8	81.9
Children's programs	.....	.....	.....	.....	.....	.....	.....	0.3	0.7	.....	0.5	.....
Comedy broadcasts	1.6	0.9	6.4	.....	5.3	1.2	4.9	.....	12.6	2.6	5.4	2.2
Other dramatic programs	0.9	1.4	10.5	4.3	11.8	7.3	17.5	5.8	12.6	3.3	24.4	2.5
Adult educational programs	3.6	4.2	8.2	4.3	0.9	5.8	1.7	6.1	1.0	4.1	0.9	1.2
Children's educational programs	.....	.....	1.1	.....	0.9	.....	.....	.....	.....	.....	.....	.....
Farm programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
International rebroadcasts	.....	.....	.....	.....	.....	.....	0.8	.....	.....	.....	.....	.....
News, market, and weather reports	.....	.....	.....	1.9	.....	1.9	4.1	2.1	2.7	0.7	3.4	2.5
Religious broadcasts	.....	0.9	.....	0.8	.....	1.9	0.8	3.7	.....	0.7	.....	1.0
Sports broadcasts	.....	0.5	0.5	1.1	.....	.....	.....	0.3	0.3	.....	1.5	.....
Special features of public interest	.....	5.4	.....	18.9	.....	1.1	.....	1.2	.....	1.7	1.7	2.7
Women's feature programs	.....	.....	.....	.....	.....	2.9	.....	.....	.....	.....	.....	.....
Variety programs	7.5	4.2	7.3	3.2	9.2	.....	12.5	4.8	12.1	1.7	20.4	6.0
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In the afternoon, commercial periods consist primarily of children's programs, comprising 40.1 per cent of all afternoon commercial time; comedy, consisting of 22.5 per cent, and popular music, amounting to 19.3 per cent, of the afternoon hours devoted to sponsored programs. This forms a marked contrast to

1927 when 50.0 per cent of the afternoon commercial programs comprised classical music, and women's features 33.0 per cent of the afternoon hours sold to advertisers. Sustaining programs at this time of the day center in classical, semi-classical, and popular music, which comprised 8.1 per cent, 14.7 per cent, and 34.0 per cent, respectively, to the total afternoon sustaining hours in November, 1932.

The trend in evening commercial programs has been somewhat more complicated. Since 1927 classical music has declined to almost nothing, as has semi-classical music. The proportion of hours devoted to popular music likewise has dropped from 40.4 per cent in 1929 to 21.4 per cent in 1932, while variety programs have risen from 9.2 per cent to 20.4 per cent in the same period. Drama comprises almost one-quarter of all evening broadcasts and has been increasing steadily. Comedy is less important, comprising but 5.4 per cent of evening commercial program hours. With regard to the sustaining field, music comprises 81.9 per cent of total program hours as compared with 41.8 per cent in the case of advertising programs. Of total sustaining time 5.2 per cent is devoted to classical music, 6.7 per cent to semi-classical music, and 68.7 per cent to popular music. Few other program types are represented.

Two other factors remain to be examined before it is possible to evaluate the program service of national network key stations. The first of these is the variations in types of programs broadcast on various days of the week, while the second pertains to the seasonal variations existing with regard to program practice on the part of networks.

Data regarding the first of these questions are found in Table XXXVIII.

Sunday and Wednesday were chosen for comparison in so far as the latter was found to be representative of all week days, while Sunday alone showed any marked variations. These variations are shown to consist of a greater proportion of time devoted to classical music—16.6 per cent in all—folk music, variety music, religious broadcasts, and special features. No children's educational programs, news, or farm programs were broadcast on Sunday.

Seasonal trends with regard to the proportion of various types of programs broadcast seem to show little in the way of a definite pattern. Other than a summer decline in children's educational programs, adult education, special features, and variety programs, and a marked increase in sports broadcasts during the football season in November, there is little in the way of significant variations in programs at different times of the year.

TABLE XXXVIII

Proportion of Hours of Various Types of Programs Broadcast over the Key Stations of the NBC Red and Blue and Columbia Networks on Sunday, November 6, and Wednesday, November 9, 1932*

Type of Program	Percentage of Hours of Various Kinds of Programs	
	Sunday Nov. 6	Wednesday Nov. 9
Classical music	16.4	6.6
Semi-classical music	19.0	14.0
Folk music and ballads	3.0	1.5
Variety music	3.4	1.5
Popular music	26.5	37.5
Total music	68.3	61.1
Children's programs	2.4	5.5
Comedy broadcasts	2.0	5.6
Other dramatic programs	7.4	8.0
Adult educational programs	3.4	3.6
Children's educational programs	....	1.0
Farm programs	....	2.0
International rebroadcasts	1.0	1.0
News, market and weather reports	....	1.0
Religious broadcasts	7.0	0.6
Sports broadcasts	....	....
Special features of public interest	1.0	0.6
Women's feature programs	7.5	10.5
Variety programs	....	4.5
Total programs	100.0	100.0

* The two days selected are highly representative of the major variations in available programs on different days of the week. Source: NBC and CBS program records.

The seasonal decline in variety programs is due to the discontinuance of programs featuring popular entertainers during the summer months, while the smaller portion of time devoted to special feature broadcasts is because the speakers are not available at that period. Other summer changes in program structure are due to varying listener interest. The situation in this respect is summarized in Table XXXIX.

TABLE XXXIX

COMPARISON OF THE PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST COMMERCIALLY AND ON A SUSTAINING BASIS OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEKS OF AUGUST AND NOVEMBER, 1927–31*

TYPE OF PROGRAM	PERCENTAGE OF HOURS OF VARIOUS KINDS OF PROGRAMS																			
	1927				1928				1929				1930				1931			
	August		November		August		November		August		November		August		November		August		November	
	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining
Classical music	.....	7.3	16.2	4.6	2.0	12.5	7.9	8.1	5.7	8.0	0.6	5.9	6.7	7.9	6.4	10.4	2.4	12.6	2.7	10.6
Semi-classical music	10.2	20.1	25.7	25.1	20.6	25.1	7.9	20.5	5.4	17.6	9.6	15.7	2.2	22.4	3.5	19.3	6.2	15.8	6.9	12.0
Folk music and ballads	10.2	6.4	3.4	5.5	6.8	8.1	13.0	5.3	2.7	5.1	4.5	3.7	5.2	2.5	6.9	2.4	6.8	2.9	4.3	2.2
Variety music	28.9	1.9	18.8	6.6	19.5	3.3	8.4	1.8	9.9	3.7	6.8	5.1	12.0	3.7	9.2	3.3	4.6	4.5	4.5	4.0
Popular music	37.3	39.0	21.4	26.1	20.7	23.6	15.2	23.4	30.7	37.4	29.2	39.2	18.8	35.9	20.2	30.7	26.9	40.3	28.7	36.7
Total music	86.4	74.7	85.5	67.9	69.6	72.6	52.5	59.1	54.4	71.8	50.7	69.6	44.9	72.4	46.2	66.1	46.9	76.6	47.1	68.5
Children's programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.5	.....	0.6	2.2	1.7	1.9	1.2	2.2	1.1	3.0	2.6
Comedy broadcasts	.....	0.2	1.7	0.5	.....	1.2	4.6	0.8	3.8	1.1	3.4	0.6	7.2	0.4	4.5	0.1	9.7	1.7	8.9	2.3
Other dramatic programs	3.4	1.2	0.8	0.8	8.9	2.5	8.8	2.1	6.9	3.9	7.6	4.1	12.0	4.6	11.4	3.1	9.4	3.8	9.8	2.9
Adult educational programs	3.4	7.5	3.4	11.4	.....	11.3	19.7	8.3	13.4	5.7	10.8	6.0	12.0	3.9	8.9	4.9	9.9	2.2	7.3	3.6
Children's educational programs	.....	0.9	.....	.....	.....	2.4	0.8	2.7	.....	1.4	2.3	1.5	.....	.....	1.9	0.5	.....	.....	.....	1.1
Farm programs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.7	.....	2.4	.....	2.2	.....	2.8
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.3	0.5	0.3	.....	0.1	.....	0.1
News, market and weather reports	.....	2.8	.....	3.9	.....	3.0	.....	2.3	.....	2.3	.....	2.3	3.4	3.4	2.4	2.7	1.9	1.4	1.6	1.4
Religious broadcasts	.....	3.2	.....	3.5	.....	2.4	0.8	4.4	.....	3.6	0.6	4.3	.....	3.2	0.9	4.3	.....	3.4	0.4	2.7
Sports broadcasts	.....	3.9	.....	4.8	.....	0.2	0.4	5.0	.....	.....	0.6	3.0	0.4	0.2	.....	3.4	.....	0.3	0.4	4.1
Special features of public interest	.....	.....	.....	4.6	3.9	2.2	.....	12.6	.....	0.5	...	1.6	.....	0.3	.....	3.3	.....	.....	.....	1.3
Women's feature programs	.....	1.7	1.7	0.7	5.9	1.9	7.1	1.4	18.8	2.4	17.5	2.3	11.2	2.3	12.9	2.5	12.4	3.3	12.2	1.5
Variety programs	6.8	3.9	6.9	1.9	11.7	0.3	5.3	1.3	2.7	6.9	6.5	4.1	6.7	5.6	8.5	5.2	7.6	3.9	9.5	5.1
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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* Source: NBC and CBS program records.

CHAPTER XII

PROGRAM PRACTICE: ADDITIONAL PROGRAM CONSIDERATIONS, AND AN EVALUATION OF THE AMERICAN PROGRAM STRUCTURE

Though an analysis of the types of programs broadcast over the key stations of the national networks is of basic importance to an understanding of American program practice, there are a number of additional factors which remain to be considered. Since key station programs are broadcast to a varying degree by the different members of the network, the question arises as to the proportion of various types of network programs which are broadcast by these stations as a group. Regional network and individual station program practice also must be examined. Moreover, the trend regarding the length of program must be investigated since it is a matter closely associated with developments regarding the kinds of programs broadcast. It is these factors which will be discussed next.

The question as to the proportion of various kinds of their own programs broadcast by networks must not be confused with that of the percentage of different types of programs broadcast by all of the affiliated stations of the network. The latter involves an analysis of the local programs of each station, as well as of the network programs broadcast by it, a matter which limitations of data make impossible. What is being studied, therefore, is the degree to which network programs of various kinds are broadcast by the different affiliated stations. The unit which has been developed for effecting this measurement is the station-hour, which is secured by multiplying a program of a given length by the number of stations over which is has been broadcast. The station-hours are then classified and tabulated according to type of program, with the result that a fairly accurate conception may be secured of what the country as a whole receives in the way of network service.

The general trend with regard to the proportion of total network station-hours devoted to various kinds of programs during the second week of November, 1927–32, is found in Table XL. As in the case of key station broadcasts, the data for all networks have been combined to present a picture of American network broadcasting as a whole, and to avoid misleading competitive comparisons.

A comparison of the proportion of network station-hours devoted to programs of different types, with the percentage of program hours devoted to the same types by the key stations, furnishes an interesting approach to the analysis of network program trends. With regard to classical music, the proportion of time devoted to it, measured in terms of station-hours, is higher than in the case of the key station broadcasts, indicating a relatively wider acceptance of classical offerings by affiliated stations. The trend in this respect, however, is toward a slightly decreasing acceptance. Semi-classical music, on the other hand, has always received less widespread circulation over the networks than has classical music, while the trend is toward an even narrower use of this type of program by affiliated stations.

Folk music and variety music show little in the way of definite trends. The proportion of network station-hours devoted to popular music has been appreciably less than the relative amount of time devoted to it by key stations, showing that the member stations have been relying upon their own resources in this field. Recently there has been a tendency toward a wider acceptance of network presentations in the field of popular music. This is probably due to the fact that network broadcasts of dance bands are beginning to achieve a distinctiveness which the individual station finds difficult to match.

The proportion of network station-hours devoted to children's programs is from one-half to one-third as much as the time given over to such programs by the key stations. This is explained by the fact that time differences cause many of the children's programs to be unacceptable to far-western stations. For these stations, the children's programs fall at the wrong period of the day. There is no clearly defined trend with regard to either comedy or dramatic programs, though both seem to receive an average acceptance. Adult educational programs have tended to receive a decreasing measure of acceptance from affiliated stations, though the trend has been reversed during the past year. Children's educational programs, on the other

TABLE XL

Proportion of Commercial and Sustaining Hours, Respectively, Devoted to Chain Programs of Various Kinds during the Second Week of November, 1927–32, and May, 1932, over the Entire NBC and Columbia Networks

Type of Program	Percentage of Station Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total
Classical music	25.8	9.7	17.7	9.3	15.1	13.7	5.4	13.0	9.2	8.5	12.7	11.2	6.2	8.0	7.3	0.8	9.2	6.9
Semi-classical music	25.9	16.4	21.2	7.3	16.2	12.1	9.8	18.9	14.3	3.6	16.8	12.5	7.8	14.5	12.0	7.1	14.8	12.8
Folk music and ballads	7.8	4.8	5.8	10.5	6.0	8.3	8.9	3.6	7.7	4.8	2.7	3.4	2.0	4.0	3.3	3.4	2.7	2.9
Variety music	8.3	12.6	10.7	18.0	5.2	11.4	11.7	5.7	8.7	8.5	3.0	4.9	4.3	4.2	4.2	2.6	6.9	5.7
Popular music	13.7	15.0	14.6	23.9	14.4	18.0	25.6	24.4	24.7	25.1	26.0	25.6	39.2	36.5	37.5	41.9	39.7	40.3
Total music	81.5	57.5	70.0	69.0	56.9	63.5	61.4	65.6	64.6	50.5	61.2	57.6	59.5	67.2	64.3	55.4	73.3	68.6
Children's programs	.....	.....	.....	.....	.....	.....	.....	0.1	0.1	0.7	0.7	0.7	2.0	1.5	1.7	3.4	0.9	1.5
Comedy broadcasts	0.6	0.1	0.4	0.9	0.4	0.7	2.8	0.3	1.7	8.2	0.3	2.9	7.4	1.7	3.9	10.6	1.0	3.6
Other dramatic programs	.....	5.4	3.0	9.7	3.8	5.6	6.8	4.6	4.4	8.0	2.6	4.6	7.5	2.9	4.6	8.7	2.8	4.4
Adult educational programs	12.4	7.2	9.7	4.1	8.4	6.4	5.9	5.1	6.4	3.2	4.7	4.2	5.7	3.7	3.8	3.5	4.7	5.0
Children's educational programs	.....	0.2	0.1	.....	0.8	0.4	0.5	1.8	1.1	3.4	1.7	2.3	0.8	1.7	1.3	.....	1.0	0.7
Farm programs	.....	.....	.....	0.8	.....	0.4	4.2	1.1	2.7	4.4	7.3	6.3	0.2	6.0	3.9	.....	5.5	4.1
International rebroadcasts	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.8	0.4	0.6	0.2	0.2	0.2	0.6	0.5	0.6

TABLE XI.—*Continued*

Type of Program	Percentage of Station Hours of Various Kinds of Programs																	
	1927			1928			1929			1930			1931			1932		
	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total	Commercial	Sustaining	Total
News, market and weather reports	.....	1.1	0.6	.....	0.2	0.1	.....	0.8	0.4	2.3	0.4	1.1	0.9	0.4	0.6	0.2	0.2	0.2
Religious broadcasts	.....	3.7	1.8	1.5	5.2	2.8	0.6	6.3	3.6	1.0	5.7	4.1	0.3	5.5	3.5	...	2.5	1.6
Sports broadcasts	.....	13.4	6.4	1.1	8.3	5.5	0.5	4.9	2.8	.....	3.9	2.4	0.3	2.6	1.7	.....	0.1	0.1
Special features of public interest	.....	8.5	4.3	0.2	10.7	5.3	.....	4.4	2.1	.....	2.6	1.7	.....	1.3	0.8	.....	0.1	0.1
Women's feature programs	3.1	0.7	1.7	7.2	0.6	3.8	10.7	0.7	4.8	12.5	3.5	6.6	11.0	1.6	5.1	7.5	1.2	2.5
Variety programs	2.4	1.2	1.7	5.5	4.7	5.5	5.6	4.3	5.3	5.0	4.0	4.7	6.2	3.7	4.6	10.1	6.2	7.1
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

hand, are more widely accepted, probably due to the fact that, in spite of time differences, they still are available during the school day. Recently there has been a slight increase in the proportion of network station-hours devoted to religious programs. Comparison with key stations in this respect reveals a tendency toward a somewhat wider use of religious programs by the member stations of the network. International rebroadcasts and farm programs always have been very widely used. Features of special interest are tending to be accepted to a much less degree than in earlier years, the same trend being noticeable with regard to sports broadcasts. In the latter case, local programs are supplanting the network presentation. The reason for the trend as to the acceptance of special feature broadcasts cannot be determined from available data. An average acceptance is indicated for news broadcasts and women's feature programs.

An analysis of the proportion of commercial and sustaining network hours devoted to various types of programs confirms the general trends revealed with regard to station acceptance of network programs as a whole. Two general conclusions may be drawn in this respect: (1) The wider acceptance noted in commercial programs of the comedy, drama, and popular music types is due to the fact that advertisers sponsoring programs of this nature tend to buy time over a wider territory than do advertisers employing other forms of programs and, in all probability, seeking more specialized audiences. (2) The trend regarding individual station acceptance of network sustaining programs is based primarily upon the types of programs which it cannot provide for itself and therefore regarding which it requires network assistance. Programs devoted to classical music, international rebroadcasts, adult education programs secured on a sustaining basis, and farm programs are examples in point.

Outside of a slight tendency toward less acceptance of morning, than of afternoon and evening, programs by individual stations, there are no significant trends regarding the proportion of network station-hours devoted to various kinds of programs at different periods of the day. The general conclusion which presents itself regarding this entire question is that, with the exception of a few minor and for the most part readily understandable variations, the proportion of various kinds of network programs broadcast by affiliated stations does not vary greatly from the program structure of the key stations themselves.

Two minor considerations remain before regional network and individual station program practice may be investigated. The first of these is the question of special broadcasts to various small groups of affiliated stations, these broadcasts being in addition to the regular program service of the network, and, though often originating in the key station studios, not being broadcast by it. The second question is the degree to which network broadcasts are originating in other than the New York key stations.

TABLE XLI

AVERAGE NUMBER OF HOURS OF PROGRAMS BROADCAST OVER THE NBC RED AND BLUE AND COLUMBIA NETWORKS, TO SPECIAL GROUPS OF STATIONS, DURING THE SECOND WEEK OF MAY, AUGUST, AND NOVEMBER, 1928, FEBRUARY, MAY, AUGUST, AND NOVEMBER, 1929–31, AND FEBRUARY AND MAY, 1932*

SECOND WEEK OF	HOURS		
	Commercial	Sustaining	Total
1928 May	0.8	0.5	1.3
August	0.8	0.4	1.2
November	1.0	4.8	5.8
1929 February	2.3	2.1	3.4
May	3.7	3.8	7.5
August	1.6	1.7	3.3
November	1.2	6.4	7.6
1930 February	1.3	4.0	5.3
May	4.4	4.9	9.3
August	3.0	2.6	5.6
November	5.7	3.6	9.3
1931 February	4.2	5.2	9.4
May	2.4	5.8	8.2
August	4.3	3.3	7.6
November	9.3	10.5	19.8
1932 February	9.0	12.2	21.2
May	7.2	15.3	22.5

* Source: NBC and CBS records.

With regard to the former, a definite increase is to be noted, especially within the last year. The increase is revealed in Table XLI and is shown to be more pronounced with regard to sustaining than commercial programs. The broadcasts of commercially sponsored programs to special parts of the network are explained either by the practice of sending the program to the western stations later in the evening than the hour at which it has been broadcast over the key station or by a few special farm programs originating in middle western stations and not being broadcast in the East at all. The former of these two conditions undoubtedly has been the most important. Sustaining program service of this type is explained on the basis of the need for providing program service for stations which have not been included on the commercial broadcast scheduled for the period in question. An increase in this type of service points to the possibility of a like increase in the amount of network business which is being booked on a split-network basis, that is, where less than the complete basic network is purchased by the advertiser. With regard to the type of programs broadcast in this manner, the commercial trend has been toward children's programs, comedy, variety programs, and popular music, while the sustaining trend has been almost exclusively toward popular music.

The trend regarding the number of hours of network programs originating in other than the New York key station is shown in Table XLII. Prior to the latter part of 1929 no programs originated outside of New York, while the total of these broadcasts did not amount to a figure of any significance until the following year. It was not until November, 1931, that any marked increase took place in the number of commercial hours originating elsewhere than in the principal key station of the network, though the number of sustaining hours of this type began to rise as early as May of that year. Even today the total volume of such programs remains small, and, up until the present time, network efforts to make Chicago a second key center have met with only partial success.

Thus far the largest proportion of programs of this sort have consisted of popular music, though recently in the sustaining program field a trend has been noticeable toward the inclusion of semi-classical broadcasts from outside centers. A number of commercially sponsored children's programs and comedy broadcasts are originating outside of New York, principally in Chicago, as are a few programs of other types. As outside program facilities improve, a marked increase may be expected in this direction with regard to both commercial and sustaining programs.

Program trends with regard to regional networks and individual stations form another important aspect of practice in this field which must be investigated. An example of program practice in the case of a regional network is found in Table XLIII, which shows the proportion of various forms of entertainment broadcast by the Yankee Network.

TABLE XLII

AVERAGE NUMBER OF HOURS OF PROGRAMS BROADCAST OVER NBC RED AND BLUE AND COLUMBIA NETWORKS ORIGINATING IN OTHER THAN THE KEY STATION STUDIO DURING THE SECOND WEEK OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, 1930–31, AND FEBRUARY AND MAY, 1932*

SECOND WEEK OF	HOURS		
	Commercial	Sustaining	Total
1930 February	3.4	10.1	13.5
May	6.1	18.3	24.4
August	4.4	17.7	22.1
November	9.1	19.7	28.8
1931 February	6.2	22.7	28.9
May	8.9	25.6	34.5
August	8.4	28.4	36.8
November	12.7	30.9	43.6
1932 February	13.1	33.3	46.4
May	14.2	39.2	53.4

* Source: NBC and CBS program records. Since there was practically no broadcasting of this type prior to 1930, the table begins at this point.

In the case of the regional network there is little variation from the program structure found in the national organizations. There is a tendency to broadcast slightly less classical and semiclassical music than do the national networks. Fewer comedy programs are presented, while the same trend is true with regard to adult education broadcasts, women's features, and variety programs. On the other hand, the regional chain, as exemplified by the Yankee Network, tends to broadcast more religious programs, sports events, children's educational programs, and news flashes than does the national chain. The program structure of the regional network, therefore, is colored, on the one hand, by available program material, which at times restricts it slightly, and on the other hand, by the necessity of adapting itself to the particular section served. The regional network enters more actively into the community life than is possible for the national network. There, therefore, is a marked tendency for the program policy of the regional network to reflect aspects of both a national network and a local station.

TABLE XLIII

Proportion of Hours of Various Kinds of Programs Broadcast over WNAC, Key Station of the Yankee Network, during the Second Weeks of May and August, 1930, August, 1931, February and May, 1932*

(In Per Cent)

Type of Program	May, 1930	Aug., 1930	Aug., 1931	Feb., 1932	May, 1932
Classical music	2.1	3.7	6.0	3.4	4.0
Semi-classical music	9.3	9.5	4.8	9.2	14.7
Folk music and ballads	0.8	....	1.3	0.2	....
Variety music	14.1	16.5	22.3	14.8	14.3
Popular music	35.9	35.7	34.6	40.4	44.7
Total music	62.2	65.4	69.0	68.0	77.7
Children's programs	0.2	0.9	2.7	0.4	2.1
Comedy broadcasts	0.8	0.4	0.6	1.5	0.5
Other dramatic programs	3.0	1.7	2.5	2.7	3.1
Adult educational programs	2.3	1.9	0.8	2.7	2.1
Children's educational programs	....	....	0.8	0.8	0.2
Farm programs	....	....	....	....	....
International rebroadcasts	....	....	....	....	....
News, market, and weather reports	5.3	5.2	4.0	5.3	4.5
Religious broadcasts	3.2	1.9	2.2	5.5	2.1
Sports broadcasts	12.2	12.2	11.9	5.2	1.2
Special features of public interest	1.5	0.2	0.5	2.9	1.0
Women's feature programs	8.0	9.3	2.7	1.2	2.6
Variety programs	1.3	0.9	2.3	3.8	2.9
Total programs	100.0	100.0	100.0	100.0	100.0

* Source: Program records of WNAC, Boston, key station of the Yankee Network, and therefore fairly representative of the network's program service. Months given are the only ones for which complete data were available.

Data regarding individual station program practice have been gathered from several principal sources. The first of these has been detailed program information furnished by 7 individual stations. This comprises too limited a sample for more than merely illustrative purposes. It has been supplemented, therefore, by an analysis of the opinions of 52 station executives to whom questions were addressed regarding program trends, as well as by interviews with managers of other stations. Individual station data are found in Table XLIV.

TABLE XLIV

PROPORTION OF HOURS OF VARIOUS KINDS OF PROGRAMS BROADCAST OVER A NUMBER OF REPRESENTATIVE STATIONS DURING THE SECOND WEEK OF FEBRUARY, 1932*

(In Per Cent)

Type of Program	WCAU† Philadelphia	WFAA Dallas	WMBD Peoria	KFBB Gt. Falls	KMJ Fresno	KNX Hollywood	KOMO Seattle
Classical music	2.3	8.1	5.3	1.0	3.4	9.7	6.3
Semi-classical music	8.2	5.1	14.6	19.2	2.3	1.0	10.9
Folk music and ballads	......	1.5	10.2	6.2	0.7	3.9	0.4
Variety music	7.4	5.1	10.5	8.4	6.4	0.8	5.3
Popular music	37.3	38.6	25.5	24.5	49.3	20.9	30.7
Total music	55.2	58.4	66.1	59.3	62.1	36.3	53.5
Children's programs	1.7	1.0	2.0	0.6	0.2	......	0.2
Comedy broadcasts	0.8	6.1	0.6	....	0.7	3.1	6.6
Other dramatic programs	4.0	......	0.9	4.0	2.7	2.3	5.6
Adult educational programs	2.9	2.0	7.9	12.1	4.4	9.9	1.6
Children's educational programs	......	......	......	......	......	......	......
Farm programs	0.2	8.8	......	6.9	4.3	......	3.3
International rebroadcasts	0.4	......	0.3	......	......	......	1.2
News, market, and weather reports	8.7	4.5	4.8	5.6	3.2	5.5	2.9
Religious broadcasts	1.5	2.5	5.6	5.3	2.1	8.6	1.9
Sports broadcasts	4.7	......	3.2	......	2.7	0.8	1.6
Special features of public interest	5.3	2.0	1.2	1.8	0.4	0.6	2.9
Women's feature programs	3.4	8.1	2.0	......	11.7	6.8	8.6
Variety programs	11.2	6.6	5.4	4.4	5.5	26.1	10.1
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* The month of February was selected inasmuch as the greatest number of stations furnished information for this particular month.

† WCAU, Philadelphia, Pennsylvania, 10,000 watts, CBS, recently changed to 50,000 watts; WFAA, Dallas, Texas, 50,000 watts, part-time, NBC; WMBD, Peoria, Illinois, 500 watts, CBS; KFBB, Great Falls Montana, 1,000 watts, independent; KMJ, Fresno, California, 100 watts, independent; KNX, Hollywood, California, 5,000 watts, independent, recently changed to 25,000 watts; KOMO, Seattle, Washington, 1,000 watts, NBC.

Though the sample is an imperfect one, several features are noticeable. One of these is the tendency for the program structure of the station to vary with its talent facilities, the market upon which it is concentrating, and its network affiliation. Another is the larger proportion of time devoted to news flashes, sports broadcasts, religious programs, and special features, as compared with the networks.

Additional information regarding individual station program practice is found in the replies of 52 station managers to the question as to what had been the chief trends in the kinds and types of programs broadcast over their station since 1929.[1] Of the entire group, 50 per cent reported a trend toward more dramatic programs, 40 per cent toward comedy, 38 per cent in the direction of old-time music, and 28 per cent toward semi-classical programs. Only 4 per cent noted any trend toward classical music, 4 per cent toward news broadcasts, 16 per cent toward popular music, and 14 per cent toward variety programs. The replies of the 18 managers of non-network stations are especially interesting. Of this group 52 per cent indicated a trend toward old-time melodies, hill-billy tunes, and similar forms of music, 35 per cent toward popular music, 28 per cent toward drama and comedy respectively, and 22 per cent toward semi-classical programs. Though this group is limited as to number, it forms a significant contrast to the trends indicated as pertaining to the entire number of individual stations.

With regard to a comparison of the types and quality of commercial and sustaining programs broadcast, 48 per cent of the station managers stated that they could perceive no difference in this respect, while 50 per cent of the group were of the opinion that the sustaining programs possessed the greater variety.

Another question of importance in program practice is the trend regarding the length of the programs broadcast. Data regarding this feature are found in Tables XLV and XLVI.

An examination of the tables reveals that the percentage of programs an hour in length has decreased tremendously. Those of one-half hour duration have increased slightly, while a marked gain has taken place in the proportion of fifteen-minute programs. The gain in the last-mentioned group has been greater in the commercial program field than with respect to sustaining programs. The proportion of commercial programs one-half hour in length has decreased steadily since 1929, but this has been more than offset by the increase in the percentage of sustaining programs of this length.

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[1] See Appendix B for detailed questions, p. 325.

TABLE XLV

PROPORTION OF PROGRAMS OF VARIOUS LENGTHS BROADCAST OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF NOVEMBER, 1927–31, AND THE SECOND WEEK OF MAY, 1932

LENGTH OF PROGRAM	PERCENTAGE OF PROGRAMS OF VARIOUS LENGTHS					
	1927	1928	1929	1930	1931	1932
Under 15 minutes	17.8	13.9	11.7	6.7	1.5	2.0
15 minutes	25.2	27.5	28.8	46.6	61.4	61.7
16–29 minutes	3.4	2.5	2.2	1.5	0.2	1.9
30 minutes	22.4	31.5	31.9	30.7	30.4	29.8
31–44 minutes	0.3	0.5	....	0.7	....	....
45 minutes	0.6	2.7	7.9	3.1	2.1	0.7
46–59 minutes	3.4	0.5	0.2	1.4	....	....
60 minutes	22.4	17.2	15.5	8.1	3.4	3.4
Over 60 minutes	4.5	3.7	1.8	1.2	1.0	0.5
Total programs	100.0	100.0	100.0	100.0	100.0	100.0

TABLE XLVI

PROPORTION OF COMMERCIAL AND SUSTAINING PROGRAMS OF VARIOUS LENGTHS BROADCAST OVER THE KEY STATIONS OF THE NBC RED AND BLUE AND COLUMBIA NETWORKS DURING THE SECOND WEEK OF NOVEMBER, 1927–31, AND THE SECOND WEEK OF MAY, 1932

LENGTH OF PROGRAM	PERCENTAGE OF PROGRAMS OF VARIOUS LENGTHS											
	1927		1928		1929		1930		1931		1932	
	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining	Commercial	Sustaining
Under 15 min.	27.1	14.7	19.5	11.6	11.2	11.3	5.9	7.1	.....	2.5	.....	2.8
15 min.	10.0	30.0	8.2	34.5	14.9	33.3	58.9	40.9	73.6	53.8	75.6	55.9
16–29 min.	.....	4.6	.....	3.4	.....	3.1	.....	2.2	.....	0.4	.....	2.5
30 min.	30.0	19.9	43.5	26.6	53.9	24.8	27.8	31.8	20.9	35.9	20.5	33.8
31–44 min.	.....	0.4	.....	0.6	.....	.....	.....	1.1	.....	.....	.....	.....
45 min.	.....	0.9	4.6	2.0	4.4	9.3	0.6	4.3	0.5	3.2	.....	1.1
46–59 min.	1.4	4.1	.....	0.6	.....	0.2	.....	2.1	.....	.....	.....	.....
60 min.	31.5	19.4	18.7	17.7	11.2	17.2	4.8	9.7	3.5	3.5	2.1	3.9
Over 60 min.	.....	6.0	5.5	3.0	4.4	0.8	2.0	0.8	1.5	0.7	1.8	.....
Total programs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

With regard to individual station experience as to the trend in the length of programs broadcast, 69.1 per cent of the station executives questioned regarding this feature stated that the quarter-hour programs were increasing. Another 21.1 per cent mentioned the half-hour as increasing, though half of them stated, in addition, that the quarter-hour program was holding its own. The remainder of the station managers noted no appreciable trend in any direction.

Detailed information having been presented regarding the major aspects of program practice, it now becomes possible to evaluate American broadcasting procedure in this regard, both from the viewpoint of the program service rendered the listening public and of the advertising aspects of current methods. The first question to be touched upon is that of the adequacy of the general program structure from the viewpoint of listener service. From data presented, it seems that the program structure of American broadcasting, both network and individual station, is fundamentally sound. It is true that individual station program quality must be raised considerably. However, in view of the difficulties faced by many broadcasters, they have succeeded in making a fairly creditable showing in the matter of programs. Where improvement is most necessary is with regard to the quality of programs rendered, rather than with respect to a greater balance between types.

The national network program structure shows signs of a tendency toward greater diversity in programs offered, which should result in improved listener service. Network program schedules are still weak as far as the proportion of classical and semi-classical music is concerned, and steps should be taken to rectify this situation. This does not mean that any great measure of this type of music need be added to the program schedule. Because of its inherent psychology, popular music always will remain popular. However, a few classical programs, placed at strategic hours during the day and week, would add greatly to the pleasure derived from broadcasting by important minorities among the listening audience, and would go far to quell the criticism often heard of American programs among certain groups of listeners.

Though the proportion of various kinds of programs broadcast throughout the week as a whole is fairly satisfactory, the same cannot be said with regard to the apportionment of these programs on different days, and at various hours of the day. At present there is too great a concentration of classical music on Sunday, with the result that the listener receives a surfeit at this time and is starved for the remainder of the week. Likewise, though the variety of programs offered to afternoon listeners is splendid, and that of the morning generally satisfactory, there tends to be too great a concentration of evening broadcasts upon certain types of entertainment. Consequently, unless a listener enjoys comedy, variety programs, melodrama, or popular music, he will find it difficult to satisfy his taste after six or seven o'clock at night, except in rare instances. Indeed, it seems that this lack of balance with regard to evening programs is what is really at the heart of much of the criticism of American broadcasting which is extant today.

The matter is a simple one to solve, and requires no sweeping change of program policy to rectify the situation. Only a few higher-class programs need or should be added. In a democratized system of broadcasting, it is vitally essential to devote the great majority of the time to the types of programs popular with the great mass of listeners. However, the minority of listeners preferring better music and more cultured programs deserves greater consideration. Though it may constitute no more than 5 per cent or 10 per cent of the total radio audience, it still comprises from 1,000,000 to 2,000,000 radio families. This minority possesses important purchasing power, and is worth the careful consideration on the part of the broadcast advertiser. It is quite true that these listeners may laugh with the remainder of the country at the capers of Eddie Cantor, or the assininities of Gracie Allen. But the number of such programs is definitely limited. It therefore may be well for the advertiser desirous of reaching this important purchasing group to consider some of the better types of programs. A few such broadcasts, placed at times when most listeners will be able to enjoy them, would add tremendously to the service value of American programs, without greatly disturbing the basic structure designed for the great mass of listeners.

The effect of commercial programs upon American broadcasting has often been misunderstood. It is frequently assumed that it is the commercial sponsor who is responsible for the lack of balance which at times exists in the American program structure. This does not seem to be the case, for the commercial sponsor has tended to concentrate less upon forms such as popular music broadcasts than have the executives in charge of network sustaining programs. In addition it has been the commercial sponsor, primarily, who has given impetus to the development of the comedy, dramatic, and children's types of programs. Many of the programs in these categories still are comparatively crude. However, it is doubtful whether radio dramatic technique would have progressed as far as it has, were it not for sponsor demand for programs of this type. On the other hand, the broadcast advertiser is not entirely without blame, for it is he who is largely, though not exclusively, responsible for the endless repetition of certain types of programs on every night of the week. His negative effect on programs, however, has been greatly overrated.

Comparison of the proportion of network station-hours of various kinds of programs with the percentage of the same programs broadcast over the key stations of the networks revealed no significant variations. The same was true with respect to the program practice of regional networks. Individual stations were shown to follow network leadership in program development for the most part, though there was a greater tendency to adapt programs to local conditions and to enter actively into the civic life of the community. Whether this network dominance of program trends is desirable is a matter of question, though until station program departments grow in strength it undoubtedly will continue to exist.

With regard to the potentialities of various kinds of programs, both from the viewpoint of listener service and advertising value several comments are necessary. In the field of music, popular melodies will always be the most acceptable to radio audiences. Popular music is based upon pronounced rhythm and simplicity of melodic line. Consequently it will be appreciated and understood by the most musically naïve intellect, while under the correct conditions its motor aspects may produce beneficial results in the listener. Furthermore, it requires no concentration, and is well-adapted to what may be termed "lazy listening."

On the other hand, the very simplicity of popular music causes the listener to tire quickly of any given number and tends to introduce problems with regard to the maintenance of continued novelty and distinctiveness in the program. As one program manager remarked,[2] "Avoid riding new popular tunes to death. They are short-winded brutes." Moreover, because of the multiplicity of such broadcasts, it becomes necessary to create a distinctive form of presentation in order to have one's program stand out from the general run of similar endeavors. This may be done by securing an outstanding soloist, by achieving a unique rhythm or manner of orchestration, or by including a well-known comedian or musical comedy star in the program. In the latter case script is added to the program and it becomes a variety presentation. This causes the popular music program to be an effective weapon in the hands of the enterprising and ingenious advertiser, though it is weak when used by one of only mediocre ability.

The variety program has gained tremendously in vogue, though it still remains to be seen whether it possesses sufficient vitality to continue its dominant place in the broadcasting field. Comedians, script writers, "gag" artists, and program directors will be hard put to keep these programs running at their present tempo. Developing effective humorous lines for one theatrical performance, where they may be repeated night after night for the run of the show, is a vastly different matter from producing new laughs either nightly or weekly. Radio burns out its artists very swiftly. This is true of comedy broadcasts as well as of variety programs.

Classical and semi-classical programs already have been discussed at some length. However, a consideration of these types raises several additional questions. Though more limited in its appeal than is popular music, the classical program is fundamentally stronger in its interest value, and consequently does not lose its novelty as quickly as does dance music. Moreover, because of the little competition existing in the field today, classical and semi-classical programs have greater possibilities for isolation and distinctiveness than do the more widely sponsored dance melodies. Thus these forms merit the careful consideration of the advertiser.

Another problem relating to musical programs is the size and nature of the performing unit. In the early days of broadcasting, most musical programs consisted either of instrumental or vocal solos. As time progressed, larger units came into prominence, culminating in the broadcasts of symphony orchestras, choruses, and large dance bands. This resulted in greatly improved musical rendition. However, what radio gained in versatility and tonal quality, it lost in intimacy. For the most part the possibilities of intimate music over the radio has been overlooked. A symphony orchestra, turned on loud enough to secure the proper tonal values, usually has too much volume for the listener's comfort, except in a large room. This does not nullify the value of the symphonic broadcasts, but at times arouses the desire for something less pretentious. Consequently smaller groups, such as string quartettes, instrumental trios, piano ensembles, woodwind ensembles, and similar groups possess much greater broadcasting value than thus far seems to have been realized. With intelligent and enterprising showmanship, new program forms might be developed out of these possibilities.

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[2] *How To Broadcast: The Art of Teaching by Radio,* by Dr. Cline M. Koon, senior specialist in education by radio, U.S. Office of Education.

In this regard, the development need not be exclusively in the field of purely classical music. The classical string quartette stresses form and development too much to be of sustained interest to other than the musically educated listener. However, old songs and simple melodies are especially adaptable to performing groups of this type. One of the most splendid renditions of this nature is the record made many years ago of "Drink to Me Only with Thine Eyes" by the famous Flonzaley Quartette, since disbanded. It is the intimacy inherent in such music which has been the secret of the success of the crooner and radio speaker. Why should it not be employed effectively by the radio musician and broadcast advertiser?

With regard to other forms of programs, the entire field of education by radio possesses marked potentialities. It need not be expected that radio will supplant the school to any important degree, or that it will be taken over by the school system. Its function in the total educational scheme is too small, and the cost too great, for such an undertaking on the part of the educators. However, in the dramatization of history and similar fields, as well as in other limited aspects, broadcasting can constitute an important supplement to the work of the classroom. There should be a great development in this field with regard to individual stations, as their technical and program facilities improve, and as the local school authorities become better acquainted with the possibilities of radio as an educational force. Broadcasting possesses even greater potentialities in the field of adult education, and here it is to be hoped that the numerous endeavors now under way will continue to be carried on with even greater vigor. This latter field has important advertising significance, for, through a well-constructed program such as the broadcasts of Angelo Patri or Dr. Haggard, groups of listeners may be reached and formed into loyal and remunerative audiences.

Drama is the other field of program development which warrants detailed discussion of its potentialities. It is one of the strongest features of radio broadcasting; for it allows untrammeled play of the imagination in a manner impossible to the theater, motion picture, or the printed page. Broadcasting, in the drama, tends to recapture the psychology of ancient story telling. "The fact that nothing can be seen in some ways is not a loss but rather a gain;" states Dr. Koon,[3] "for a given clue—a directing impulse, and the mind's eye will visualize the scenes beyond the physical powers of designers to build or the camera to photograph. . . . . Radio plays fall flat if they fail to create illusions and to affect human emotions."

Next to its ability to transmit music, this is the greatest advantage of radio broadcasting. It is of value, not only in dramatic programs proper, but in educational broadcasts, news reports, and similar types of programs. Through the use of dialogue, or even of more than two characters, and through casting them in definite dramatic form, old types of programs may be invested with new interest by advertiser and network program official alike. Though dramatic programs at present are mostly devoted to melodrama, it is quite probable that this is merely a passing vogue. It should be noted, however, that because of the great freedom of play which broadcasting affords the listener's imagination, it is especially well adapted to the mystery drama form of program. Here no concrete objects exist to question the plausibility of the plot, and the imagination courses untrammeled through its intimacies. The folk drama, presenting daily experiences familiar to all listeners, also possesses great possibilities of development.

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[3] *Ibid.*, pp. 43–44.

The question of drama is closely akin to the problem of the length of the program. The rise of the fifteen-minute program has been closely related to the development of the comedy strip act, repeated several nights a week, and to the increasing popularity of dramatic broadcasts in general. Regarding the value of the fifteen-minute program for general purposes, there is a considerable difference of opinion among experts. Advertising agency and network executives are unanimous in stating that the quarter-hour period is the only one adapted to the comedy or dramatic "strip" program, which is repeated on successive nights. A longer program would require more action than could be created in each episode, so that the program either would burn out at an early date or would become monotonous because of repetitions inserted to use up time.

As to its applicability to other forms of entertainment, the answer is less certain. The fifteen-minute program possesses the advantage of being a small self-contained unit, which enables a quick flow of action and, in the opinion of some experts, a distinct personality. The nightly repetition which usually accompanies its use, however, is a heavy strain upon the originality of the actors and writers, and it is difficult to maintain the tempo of a fifteen-minute broadcast over any long period of time. Moreover, it is impossible to secure much variety in a fifteen-minute program. The time is limited, and, in addition, any great variety of talent on so brief a program raises the cost of broadcast advertising far beyond reasonable limits. Some agency executives believe that contrasting numbers and moods are not necessary to insure color in a program, while others are equally insistent with regard to the opposite opinion.

An important disadvantage of the fifteen-minute program is its comparative lack of isolation. Programs follow upon one another so swiftly that the listener cannot adjust himself to any of them. Consequently, unless it is a dramatic or comedy presentation, possessing sustained interest and repeated daily, the fifteen-minute program will have little opportunity to impress itself upon the mind of the listener. Moreover, since the listener must continually be turning the dial of his set from one station to another, in search of an acceptable program, the prevalence of the fifteen-minute period may be contributive to such dissatisfaction as exists with broadcasting today.

The half-hour period has much greater adaptability than does the fifteen-minute program, and is probably the best length. Except for strip acts, it possesses practically all of the advantages of the fifteen-minute program, without many of its weaknesses. The hour program also is splendid from the viewpoint of broadcast advertising. It gives opportunity for a large-handed procession of talent before the microphone, and, because of its very size, builds prestige. It also possesses a high degree of isolation, by reason of its length. The chief disadvantages of the hour period are the high cost involved in a program of this sort, and the difficulty, at times, of maintaining a continued rapid pace throughout a program of that length. At the present time financial resources, more than advertising logic, will probably determine the length of the average program, so that the fifteen-minute period is almost certain to continue in popularity for some time to come.

More important than the length or basic type of program broadcast is the problem of the similarity of all programs within a given category. This has become more noticeable within recent months, and constitutes a serious challenge to program progress. Agency executives have been especially outspoken on the point, and have been inclined to attribute this similarity of program to the network program departments. They have stated that it was impossible for the agency to carry on the experimentation necessary to the creation of new and more attractive forms of programs. For such a task, the agency has neither the time nor the resources. In contrast to it, the network possessed the requisite staff, facilities, and a much greater need for producing distinctive programs. A radio broadcasting network is selling the advertiser circulation based upon programs. It is programs, therefore, which constitute its stock in trade, not the mere coverage of the stations affiliated with it. Thus far, networks have sold groups of individual stations; not even networks as a whole, to say nothing of their program facilities. As one agency executive remarked, "If the president of either of the national network companies were to give his program department one million dollars with which to produce distinctive programs, and demand that they do it, he could sell those programs tomorrow for four times what they cost him."

In view of the fact that network programs seem to have followed, rather than led, commercial program developments, there seems to be some justification for the agency criticism. Why triteness and lack of originality should have become so thoroughly entrenched in sustaining program policy is hard to say. It undoubtedly was due, at least in part, to the fact that networks have been engaged in constructing programs for immediate sale rather than in building solidly for the future. It also may have been partly due to the mushroom growth, and consequent lost motion, existing in network programs departments. No matter the cause, the problem remains to be faced. It is the most serious problem in the field of broadcasting technique, for upon the continued virility and novelty of American programs depends the future of broadcasting and broadcast advertising in this country.

A minor matter regarding broadcast advertising technique is the growing practice of companies to sponsor more than one program. Usually one program is broadcast in the morning or afternoon for the housewife, another late in the afternoon for the children of the family, and another in the evening for the entire family, including the head of the household. This procedure is varied to meet the requirements of the company, but the principle remains the same in all cases. Thus in the spring of 1932 the Wrigley Company broadcast "Myrt and Marge" at seven o'clock at night to reach the adult audience, presented the "Lone Wolf Tribe" late in the afternoon to secure the attention of the children, and presented a series of bridge lessons by Ely Culbertson both during the daytime and again at night in order to reach the feminine listener. A more recent endeavor along the same general line has been the "Five Star Theatre of the Air," which presents five different programs divided over the two national network companies, on five successive nights during the week. It is sponsored by the concerns marketing Esso gasoline. In the spring of 1932 there were 38 companies using two or more periods, and two or more networks to advertise their product or products.[4]

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[4] *Variety*, May 17, 1932, pp. 49, 54.

CHAPTER XIII

COMMERCIAL ANNOUNCEMENT TECHNIQUE

In the radio program of today the principal sales burden is carried by the commercial announcement. It is this part of the program which identifies it as being the offering of a specific company, and which is the chief means by which the desirability of purchasing the sponsor's product is conveyed to the listener. During the ten years in which broadcast advertising has been in existence, the technique of presenting the commercial announcement has changed more than is generally appreciated. These changes will be considered, both from the aspect of their bearing upon broadcast advertising practice and upon the larger problem of the degree to which American broadcasting has been able to fulfil the public interest.

The commercial announcement did not originate immediately upon the advent of broadcast advertising. The first advertising ventures over the new medium consisted of ten-minute talks, during the course of which the advertiser presented his sales message. It was not until some months later, when the so-called sponsored program came into being, that the commercial announcement also sprang into existence. Since the ten-minute sales talk was clearly recognizable as to sponsorship and purpose, it presented no special selling problem. However, when entertainment came to be part of the commercially sponsored program, the question immediately arose as to where and how the advertising material should be inserted.

Early practice regarding the construction and insertion of the commercial announcement in the sponsored program was based upon the theory that the sole value to be derived from broadcast advertising was the listener goodwill which was engendered, and which reflected itself in increased purchases of the sponsor's product by those who had enjoyed the entertainment. Broadcasting was believed to be unadaptable to selling effort of a more direct nature. As a result of this opinion, the first commercial announcements contained little more than the mere mention of sponsorship. An example of this early type of announcement is found in the following one, taken from among the morning programs broadcast over station WEAF, New York, October 15, 1926:

> The Washburn Company engaged the facilities of our station to present these home service talks on Monday, Wednesday and Friday. The subject of our lesson this morning is Gold Medal's Orange Pie.

This brief announcement, together with a statement that Betty Crocker, the Gold Medal cooking expert, would be glad to answer any questions addressed to her, constituted the opening announcement for a twenty-minute program. The closing announcement was almost identical as to content and expression. The same type of announcement is illustrated by those employed on the "Happiness" program, sponsored in 1926 by the Happiness Candy Stores of New York City and featuring the famous Jones and Hare combination. As in the previous case, the opening and closing announcements were little more than twenty seconds long and were confined almost exclusively to mentioning the name of the sponsoring company and its product. In the "Happiness" program, however, there was a slightly greater attempt at selling, for the company slogan, "Happiness Is Just Around the Corner," was mentioned frequently during the course of the entertainment.

It must not be assumed that all of the early commercial announcements were of this nature. Indeed, a perusal of network files indicates that the sponsorship type of announcement was always in the minority. One is impressed with the degree to which commercial announcements of the year of 1926 contain the seeds of current practice. Thus a program sponsored in the fall of that year by the LaFrance Company possessed practically all of the elements considered essential in the announcement of today. The program opened with an excerpt of a march, employed in theme-song fashion. Following this, there was an announcement of approximately one minute and a half in length, telling of the qualities of LaFrance Bluing and Cleansing Flakes, and Saturna Starch Tablets. There was another selling announcement, a minute in length, at the mid-point of the half-hour program, and a brief closing announcement offering to send listeners post cards of the LaFrance display at the Philadelphia Sesqui-Centennial Exposition.

A similar precursor of modern practice is to be found in the "Ipana Troubadours" program. Though most of the brief copy was institutional, there was considerable mention of the red and yellow box in which Ipana Toothpaste was packaged. This was skilfully woven into the program by stating that the troubadours themselves were dressed in red and yellow costumes. Cliquot Club Ginger Ale, at the same period, was emphasizing the pronunciation of their name and calling attention to the Eskimo on the label, while the "Whittall Anglo-Persians" were combining semi-classical music with two-minute announcements as to the qualities of domestic replicas of oriental rugs, and offering a booklet entitled *Little Journeys into the Far East* to anyone who would write them. For the most part, early commercial announcements bore a close similarity to present ones in many of their features, though the skill with which they were done was much less than it is today. There was an almost universal request for fan mail in 1926, which is highly reminiscent of the feverish attempts to secure listener response through the use of contests in 1931 and the early part of 1932.

Commercial announcement practice did not change materially during the following season. However, during the latter part of 1928 and the year of 1929, the selling type of announcement began to be developed. The theory that broadcasting possessed value only as a good-will agent was being discarded and advertisers were coming to see that sales messages, similar to those inserted in other media, could be sent out over the air. Though its good-will element was, and always will be, one of its greatest sources of advertising strength, broadcasting was seen to possess wider possibilities.

In the Arch Preserver Shoe program of that year, there was a tendency to use a brief introductory announcement, a long middle announcement telling of the distinctive qualities of the product advertised, and a minute's closing announcement suggesting that the listener visit their local dealer at the earliest possible moment. Firestone, Bond Bread, Coward Shoes, and similar programs all exhibited the same general trend.

A beginning of the use of more indirect forms of approach was to be noticed in a few programs in 1929. Thus on the Chevrolet program of the "General Motors Family Party," which presented John Philip Sousa and his band for the first time over the air, an indirect approach to the advertising message was employed. The program opened with a brief statement regarding the premier radio performance of the famous leader and his band, and then went directly into the entertainment proper with only the briefest mention of sponsorship. Such selling message as there was, was included in the closing announcement. During the same year, Fels Naptha Soap produced one of the first announcements to be presented in dramatized form. The announcement in question recounted briefly, in dramatized version, the story of an uncle who gave his niece a small house where he intended her to learn housekeeping before presenting her the family mansion. Needless to say, the heroine used Fels Naptha Soap and won the right to her uncle's estate.

The announcements of the period 1928–30 were distinctly formal, employing stock phrases, and always appearing at the same points in the program. Even the best of these were more acceptable when read than when heard. Informality and personal appeal were still to be introduced into them. An example of the better type of program of the period is to be found in the closing announcement of a program broadcast over station KOMO, Seattle, June 25, 1929:

> You have just listened to a feature brought to you through the courtesy of Cheasty's Incorporated. Mr. Reseburg will address you again, next Saturday evening at 9:30 P.M. discussing various swimming strokes. Cheasty's Incorporated sponsors these talks on swimming every week—Cheasty's—the distributor of Wil White swimming suits. Bathing suits have become swimming suits now,—and the Wil White lines come in all the alluring colors and bewitching styles of the season—their names are as intriguing as the styles—Caprice,—Coquette,—Sun Tan,—Debonaire,—Silhouette and Cameo. Swimming suits have style as well as any other garment,—and it is of utmost importance that they both have style and colors that flatter. So remember the Wil White Line at Cheasty's Incorporated when you look for a new bathing suit.

Another example, taken from station WNAC, Boston, illustrates the same point, and further indicates the universality of the practice at that period of broadcast advertising. The program in question was broadcast on January 5, 1930.

> You have been hearing the Salem Cadet Band broadcast by courtesy of the Pequot Mills, makers of Pequot Sheets and Pillow Cases, the most popular brand of sheets and pillow cases in America. Thousands of housewives say "that Pequot Brand" when buying bed linen. Perhaps you yourself know of

> some instance of the unusual wearing qualities of Pequot. If so, Pequot would be glad to have you write them a letter and tell them about it. But in any case, be sure to drop them a card and say that you have listened to this program. In return for your courtesy, they will send you a fascinating booklet called "The Story of Pequot." This booklet is beautifully illustrated and gives an insight into one of New England's greatest industries. It will help the children in their school work for it gives a new light on history, geography and economics. It is free, of course. Just send a card to the Pequot Mills, Salem, Mass., or to station WNAC.

Both of the foregoing announcements were above the general standard at the time when they were broadcast. However, they form a decided contrast to the commercial announcements of today. When merely read, they are not unpleasing, but when read aloud they tend to become impersonal and less inviting. Careful examination of either announcement will reveal a superfluity of words and a repetition of ideas. The thoughts contained in the announcements have not been expressed in an economical and telling fashion. There is little personal approach to the listener. The "you" and "we," which looks badly in print but sounds well in speech, is almost entirely missing.

The preceding announcements form a marked contrast to those of 1931 and 1932. At that time several radical changes were made in commercial announcement practice. The first of these was the injection of high-pressure selling into the announcement. This was done by a stressing of the personal pronoun "you," and by a free use of imperatives. The high-pressure effect was further stressed by an almost hysterical use of contests. This period was followed in the spring of 1932 by a decline in high-pressure selling and by the greater use of indirect methods of injecting the commercial announcement into the program. The shift undoubtedly was stimulated partly by the vociferous objections raised against commercial announcements by certain groups in the community. More important, however, was the growing recognition that informality, and the presentation of the commercial announcement as part of the entertainment, possessed definite sales value. Since the announcements of the 1931–32 period constitute the basis of current broadcast advertising practice, and since they have been those most criticized as being incompatible with the public interest, they require considerable discussion.

Two aspects of commercial announcements are of interest:

the length of the announcement, and its type. The trend regarding the length of commercial announcements broadcast over the national networks is presented in Table XLVII.

The reliability of the table is confirmed by the fact that in a count of all commercial announcements broadcast over the national networks during the second week of November, 1931, by the Federal Radio Commission, the proportion of time consumed by commercial announcements on daytime programs was shown to be 11.56 per cent and on nighttime programs 11.07 per cent.[1] Commercial announcements comprised 2.50 per cent

TABLE XLVII*

AVERAGE LENGTH OF COMMERCIAL ANNOUNCEMENTS BROADCAST BY THE NBC RED AND BLUE AND COLUMBIA NETWORKS, 1927–32†

Year	¼-Hour Program		½-Hour Program		1-Hour Program	
	Length of Time	Percentage of Period	Length of Time	Percentage of Period	Length of Time	Percentage of Period
	Daytime					
1927	1 min. 40 sec.	11.1	3 min. 54 sec.	13.0		
1928	3 min. 20 sec.	22.2	3 min.	10.0	3 min. 42 sec.	6.1
1929	2 min. 40 sec.	17.8	3 min. 24 sec.	11.4		
1930	1 min. 36 sec.	10.7	2 min. 10 sec.	10.6‡		
1931	2 min. 15 sec.	15.0	2 min. 35 sec.	11.9		
1932	2 min. 20 sec.	15.5	2 min. 28 sec.	11.6		
	Nighttime					
1927			1 min. 40 sec.	5.6	2 min. 20 sec.	3.9
1928			2 min. 7 sec.	7.0	2 min. 45 sec.	4.6
1929	1 min. 36 sec.	10.7§	2 min. 20 sec.	7.8	3 min. 58 sec.	6.6
1930	1 min. 40 sec.	11.1	1 min. 45 sec.	5.9	3 min. 45 sec.	6.2†
1931	1 min. 55 sec.	11.7	2 min. 39 sec.	8.8	3 min. 43 sec.	6.2
1932	1 min. 50 sec.	11.6	2 min. 39 sec.	8.8	3 min. 41 sec.	6.1

* Average of 75 programs annually chosen at random from network files for one-fourth and one-half hour programs, and 25 annually for hour programs.

† Count based on 150 words a minute, as used by Radio Commission in Commercial Radio Advertising.

‡ Columbia Broadcasting System first appears in summary, due to 1929 announcements being unavailable.

§ First 15-minute nighttime program was "Amos 'n' Andy," August 19, 1929.

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[1] *Commercial Radio Advertising*, Federal Radio Commission, p. 32.

of total daytime broadcasting hours over national networks, and 5.94 per cent of the nighttime hours. The lower proportion of daytime hours consumed by commercial announcements, in spite of the greater average length of the daytime announcement, is due to the smaller number of commercial programs broadcast prior to six o'clock at night. The proportion of direct selling in broadcast advertising is comparable to the ratio of advertising to total space in the periodical field, which usually ranges from 40 per cent to 60 per cent.

There has been surprisingly little increase in the length of the average commercial announcement within recent years, so that the objections of certain groups of listeners on this ground seem to be without foundation. This trend exists in spite of the fact that the widespread introduction of the contest tended to increase the length of the commercial announcement rather than to shorten it. Thus any criticism of broadcast advertising procedure in this field must have its basis in other causes.

It is quite impossible to venture any conclusion as to the real extent to which listeners have been dissatisfied with commercial announcements. It is too easy to assume that the behavior of one's own class is typical of the entire public, whereas it may be exactly the opposite. Educational circles and similar cultural groups may be especially displeased by high-pressure sales announcements. Because of their position in the community and their advantageous situation with regard to winning public hearing, their opinions are more liable to receive wide circulation than are those of other segments of the listening audience. Whether the opinion held by these groups is right or wrong does not alter the fact that there is no basis for believing it to be representative of listeners as a whole. Such agitation as there was of this type received additional impetus from propaganda issued by certain educational groups and by the willingness of the press to publish information of this type concerning their competitors.

Moreover, there were a number of additional factors which may have been at the basis of such legitimate criticism as may have existed. The trend toward the fifteen-minute period brought commercial announcements of adjacent programs closer to each other in point of time and undoubtedly increased their prominence. The imperatives used so freely in the high-pressure announcements at times may have had the effect of arousing listener resistance and consequent dislike for the announcement. An announcement that is disliked invariably will seem longer than one which is enjoyed, if the time actually consumed by either of them is at all comparable to the other. The more efficient use of words, and resulting greater number of ideas that could be expressed in an announcement of given length, may serve to make announcements seem longer than they really are. Whatever may actually have been the case regarding public attitude toward commercial announcements, the fact remains that the great increase in length sometimes attributed to them never occurred. There is little doubt that the positiveness of many announcements in 1931 was of a nature to merit censure,[2] but this difficulty has largely been overcome in the changes in announcement procedure which have been instituted since the beginning of 1932.

The principal trends in commercial announcement practice since the early part of 1932 can be summarized as follows: The commercial announcement of today, as compared with but a few months ago, is more elastic and adaptable than ever before. It is not always inserted at the same point of the program or in the same fashion. It appears at the beginning and end of programs less often than before, in many cases being followed by a short postlude made up of entertainment. The announcement of today is better adapted to the spoken word, thus gaining in directness, conviction, and personal appeal. This personal appeal is further enhanced by a conscious attempt of both writers and announcers to converse with their audience rather than to mount the rostrum and to preach at them. There is a greater entertainment element in all announcements, while in many instances the announcement becomes part of the program itself.

Dramatization of the announcement, such as practiced in the Sherlock Holmes program of G. Washington Coffee and on the Canada Dry Ginger Ale period, is coming to the forefront to an increasing degree. Dialogue between the announcer and other characters is being used generally. In the case of some programs the announcement itself is being held up to mild ridicule, as in the case of Ed Wynn with Texaco Gasoline and Ben Bernie with Blue Ribbon Malt. In other cases special announcers, not of the broadcasting profession itself, have been employed to achieve informality and conviction. The use of Heywood Broun on the General Electric program during the winter of 1932 was an example of this type of procedure. Quite recently a new form of announcement has appeared in scattered instances. This form capitalized upon consumer goodwill in a concrete and practical fashion. It states specifically that listener purchases of the product make possible the broadcast in question and that unless these continue it may be necessary to withdraw the program. In other cases withdrawal is not threatened though the rest of the approach remains the same. In the case of one hand lotion, an announcement of this type produced a 50 per cent increase in sales during the following week.[3]

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[2] The much-discussed and undoubtedly justifiably criticized Cremo announcement of a short time ago is an example in point. Most of these announcements ran from 45 seconds to 1 minute despite their seemingly greater length. The nature of the copy created the illusion of length.

An example of a straight selling announcement, presenting a more direct and personal approach than found in the earlier years of broadcasting is found in the following concluding announcement of the Lowell Thomas–Blue Sunoco program of February 15, 1933.

> Like inches, pounds and even minutes, gallons too, are measured by rigid regulations and laws. That is why, when we sell you Blue Sunoco we must give you just so much of this brilliant motor fuel, no more or no less. But even if the law is so rigid about the *amount* of motor fuel we sell you, it has nothing to say about the *quality* of that motor fuel. And do you know, that is one of the reasons why over a million motorists use Blue Sunoco? They feel that Blue Sunoco gives them more quality per gallon. Why don't you try it yourself? Drive on Blue Sunoco for just a few weeks. Get your first tankful tonight and by this same time tomorrow evening, when Lowell Thomas will again be heard, you will begin to notice the improvement in the performance of your car.

An example of the dramatized form of commercial announcement is found in the Canada Dry program of January 19, 1933. This company was one of the pioneers in product dramatization, and originally featured the sound of ginger ale being poured into a glass. Later the sales appeal was shifted to that of emphasizing its fountain trade and the fact that five cents would be refunded for every bottle returned to the dealer. In the example in question this is the principal point of selling interest.

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[3] Campana's Italian Balm, reported in *Variety*, January 31, 1933, p. 41.

The announcement begins with a brief opening comment by the announcer:

> Ladies and gentlemen, a half hour of sparkling entertainment by Canada Dry—the Champagne of Ginger Ales. Canada Dry is now available in the large, as well as the regular size bottles for the home, and made to order by the glass at fountains. This program stars Jack Benny,—the Canada Dry Humorist—and Ted Weems' Orchestra.

Following this there is a brief musical interlude and the program begins. The announcer, a character by the name of Mary and another by the name of Andrea are hunting for Jack Benny. Finally Ted Weems tells them that Benny has been taken to a sanitarium. The scene shifts to the sanitarium where Mary questions Benny as to why he is there. From here they proceed as follows:

MARY

Hello, Jack. Don't you know me? I'm Mary, your secretary.

JACK

Mary! How are you, dear?

MARY

Why . . . . why . . . . don't you know where you are, Jack?

JACK

Yes, Mary, I'm in a sanitarium.

MARY (*whispers*)

Gee, Paul, he seems perfectly sane. They shouldn't have him in here.

PAUL (*whispers*)

Wait—I'll find out . . . . how are you feeling, Jack?

JACK

Fine, Paul. I never felt better in my life.

PAUL

Well . . . . well . . . . then why have they got you in here?

JACK

I don't know, Paul. All I know is that I'm in here. . . . . Oh hello, Andrea.

ANDREA

Hello, Jack . . . . I'm awfully sorry to see you here.

JACK

That's all right, Andrea. They'll find out their mistake.

PAUL (*whispers*)

Say, Ted, you ask him a few questions.

TED

Oh Jack, you remember me—don't you?

JACK

Sure, Ted Weems . . . . did you bring that fruit for me, Ted?

TED

Yes.

JACK

Then stop eating it.

TED (*laughs at this*)

There's nothing the matter with you, Jack. What have they got you in here for?

JACK

You're asking me? Say Ted, there are a lot of people here who don't belong.

TED

Yeah?

JACK

Yeah . . . . you see that fellow in the next cell?

TED

Yes, Jack.

JACK

Well, he thinks he's President. He leaves here March the 4th.

(*Everybody laughs at this*)

MARY

But you don't think *you're* somebody else—do you, Jack?

JACK

No, Mary, I'm Jack Benny.

MARY

Well, I'm going to see the superintendent and make him let you out. . . . . I'll be right back.

TED

There must be something wrong, Jack. Did you lose your money in the market?

JACK

Certainly not. I sold before the crash.

TED

Is it a woman?

Jack

Don't make me laugh. . . . . I never have trouble with women.

Ted

But you must be here for a reason.

Jack

I tell you—it's all a mistake.

Paul

But it's not a mistake to buy Canada Dry Ginger Ale made to order by the glass, sold in the 5-glass bottles, with a nickel back on each large bottle . . . . Canada Dry Ginger Ale . . . . Canada Dry Ginger Ale. . . . .

Jack starts to scream

That's it . . . . that's it. Take him away. . . . . Canada Dry Ginger Ale. . . . .

Parker

Hold him, hold him, hold him.

Andrea

Jack—Oh Jack . . . .

Another phase of commercial announcement practice which recently has come into prominence is the question of price mention. Until the latter part of 1932, no price mention was allowed over networks, while individual stations limited it largely to the hours before six o'clock at night. During the spring of that year, however, network executives began to consider the possibility of revoking the ban on the quotation of prices. Finally, in July, the National Broadcasting Company announced that it would allow the mention of price on its daytime programs,[4] other than on Sunday, and on September 15 the Columbia System[5] published an even more comprehensive series of regulations regarding the mention of price over its facilities.

The Columbia System regulations allow the mention of price on both day and night programs providing certain requirements are complied with. The first of these is that two price mentions will be allowed on a fifteen-minute program, three on a thirty-minute program, and five on an hour's broadcast, provided that in each case the total "sales talk" shall not exceed 10 per cent of the total program time. Price mentions are construed as any or all price mentions of one or more products on any program.

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[4] *Broadcasting*, July 15, 1932, p. 15.

[5] *A Statement to Advertisers and Advertising Agencies*, by William S. Paley, president, Columbia Broadcasting System, Inc.

Competitive and comparative prices are not to be broadcast in any form whatsoever. Time limits set forth in the regulations apply to the direct selling message and not to mere mention of the sponsor's name during the course of the program. The Columbia System also reserves the right to refuse any announcements where more than 150 words have been crowded into a minute's delivery, as well as any others which either violate one or another of the regulations previously mentioned, or which the System deems to be contrary to the best interest of the public and the advertiser.

Shortly after the publication of the Columbia regulations the Yankee Network adopted similar rules for its nighttime programs. The network always had allowed price quotation on its daytime programs within what it termed "reasonable limits," so that its policy in this respect remained unaltered.

The prohibition of price mention originally was placed on broadcast advertisers because network executives were afraid that, if once allowed, it might be carried to undue proportions. This might easily have been the case in the early days of broadcasting. It is interesting to note, therefore, that in December, 1932, no more than 25 per cent of broadcast advertisers over national networks were availing themselves of the privilege of quoting prices. There were 29 companies in all following this practice during the first week of that month.[6] This represented a decline from the number of concerns first taking advantage of the new regulations.

Individual station practice with regard to commercial announcements varies in several respects from that of the networks. In the first place, the announcements are uniformly longer. In November, 1931, commercial announcements totaled 20.74 per cent of the total commercial hours broadcast by individual stations prior to six o'clock at night and 18.26 per cent of nighttime commercial hours. Announcements of this type comprised 7.83 per cent of total daytime and 6.39 per cent of total nighttime hours broadcast by these stations.[7]

In response to a question as to whether commercial announcements had been growing longer or shorter since 1929,[8] 67 per cent of the managers of 50 stations replied that they had been growing shorter, 17 per cent that the trend was toward longer announcements, while 16 per cent noted no marked difference. Most of those reporting a trend toward shorter announcements also stated that there had first been a tendency toward longer announcements, following which the reverse tendency set in. It also is interesting to note that 23 per cent of station executives indicated it to be their opinion that the removal of price-mention restrictions was partly responsible for the trend toward shorter announcements. Another 28 per cent of the group stated that they had been making a practice of limiting the length of announcements, usually to a maximum of 150 words.

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[6] *Variety*, December 6, 1932, p. 32.

[7] *Commercial Radio Advertising*, Federal Radio Commission, p. 32.

[8] See Appendix B for detailed questions.

The question of the soundness of present commercial announcement practice presents itself at this point. The reading of large numbers of announcements for the various years during which network broadcasting has been in existence, as well as careful listening to current presentations over the air, leads one to the conclusion that the past eight or ten months have witnessed the greatest progress made thus far in the field of the commercial announcement. This progress has centered primarily about two features: the introduction of an element of informal conversation into the broadcast advertising, and the development of various forms of dramatization with respect to it. The latter course of procedure is not open to all products and programs, though the former presents no such limitations. The informal element probably has the greater potentialities, for it makes possible the combination of the strong points of both advertising and salesmanship in the delivery of the commercial announcement.

Though the progress has been marked in this field, it should not be assumed that a great deal does not remain to be done. Some of the criticism of commercial announcements has been well founded. Numerous announcements have been too long, and many have been poorly done. Even the present innovations do not represent anything near perfection in this field. Advertising agency executives have been almost unanimous in their opinion that, though commercial announcements are improving, much remains to be done before even a point of satisfactory development is reached.

One of the most interesting and helpful statements of the requirements of effective commercial announcements has been presented by Roy C. Witmer, vice-president in charge of sales, National Broadcasting Company. The requirements, as visualized by Mr. Witmer, are as follows:[9]

1. If straight commercial announcements are used, do they give the listener some interesting and worthwhile information about the product?
2. Do they tell the story in a pleasant manner?
3. Do they ring absolutely true?
4. If actually calling on the listeners personally, would the same story be used in the same way?
5. Are they positive, or do they have a tendency to belittle a competitor's story?
6. Are they sufficiently untechnical, so that the layman understands and is interested?
7. Are they in good taste? Human nature does not like to hear or discuss disagreeable things unless compelled to.
8. Does the commercial part of the program harmonize in spirit and tone with the rest of the program?
9. Is the result of the foregoing checking, *a program*, or *a program* with *commercial credits?* It should be *a program* full of entertainment and interest from first to last.

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[9] *Applying the Singularities of Radio*, by Roy C. Witmer (National Broadcasting Company), pp. 11–12.

CHAPTER XIV

CONTESTS, SPECIAL OFFERS, AND RELATED MATTERS

A broadcasting program does not stand alone as an advertising undertaking. In order to secure the maximum value from effort of this sort it is necessary to correlate it closely with other devices and activities in the field. In the early days of broadcasting, practice in this respect was limited to the offer of a small souvenir or useful gift to listeners who would write in to the sponsoring company or the station over which the program was broadcast. Later, free samples were offered either directly or through dealers. More recently, introductory offers have been made, whereby the listener will receive a sample or full package of the new article upon the purchase of one or more units of the company's standard product. In 1931 the offer was replaced in popularity by the contest, while other forms of tie-in with the company's general advertising program began to be devised during that and the preceding year.

The offer has been closely associated with broadcast advertising almost since the beginning of the networks. Booklets and souvenirs were offered to listeners as early as 1926, prior to the formation of the National Broadcasting Company. In the following year the Cities Service Company first offered its budget book, including also a list of their gasoline filling stations in the listener's district. This offer was continued for a number of years, and, in 1931, a total of 182,000 requests were received for the budget book.

The use of this form of sales tie-in continued to grow during 1929 and 1930, though in the following season it was eclipsed temporarily by the contest. Since then the trend has again been reversed, and the special offer is replacing the contest. In December, 1932, approximately one-third of the companies on the air were giving something to listeners, either merely upon receipt of a letter or else requiring the inclusion of a carton top or similar proof of purchase. Among the offers made over the radio during the early part of 1932 were the following: a bath sponge given away by the manufacturer of a household cleaner upon the receipt of a label from the product's container; a refillable toothbrush offered by the manufacturer of a brushless shave upon receipt of a carton top; a bottle of hair tonic upon request; recipes upon request; a lucky piece; copies of talks; instructions for making a cellophane belt; an enlargement suitable for framing of any photograph sent in with four carton tops of a well-known household cleanser; together with similar items. In several other cases, full-size samples of the product were offered to the public, either free or in the form of a combination offer.

Many of the offers have been highly successful in bringing listener response. A brief announcement to the effect that the Standard Oil Company of New York would mail a booklet entitled *Christmas in Soconyland* was made on two succeeding weeks over eight stations early in December, 1931. The combined listener response was 75,000. During the first six months of 1931 the R. B. Davis Company, manufacturers of baking powder, received over 200,000 requests for recipes on their "Mystery Chef" program. In January, 1932, Ovaltine, sponsors of "Little Orphan Annie," distributed 174,000 children's mugs. One of the most successful of all offers was that made by Pepsodent when introducing its new antiseptic. The response to an offer of a free full-sized bottle of the new product to anyone who would turn in the tops of two of the company's toothpaste cartons was so great, that, it is said, the antiseptic was bought by New York City chain stores at a one per cent premium from any wholesaler who was fortunate enough to possess it. By the second week of the offer it was necessary for the company to announce that, due to the unexpected demand, it might be impossible for the listener's local dealer to fill his order immediately, and cautioned the radio audience against accepting substitute brands. It is said that approximately 2,500,000 units of the antiseptic were distributed in this manner.

The contest did not enter the field of broadcast advertising in any direct manner until 1931, when the networks removed their prohibition of this type of sales promotion at the insistence of advertisers. In 1928 and 1929 statements were inserted in the commercial announcements of some companies to the extent that listeners could procure details regarding contests by visiting their nearest dealer or by watching the columns of their local newspaper. This indirect method was unsatisfactory, so that it was necessary to make concessions in the broadcasting of contest information.

Following the removal of network regulations prohibiting the use of contests as part of the advertiser's commercial copy, companies flocked to the new device. The trend toward contests was not uniform throughout all industrial groups, since not every company possessed a product or market to which this form of promotion was adaptable. It was primarily in the convenience goods field that the contest was utilized, it being estimated that, at the peak of the vogue, approximately 20 per cent of concerns of this type were making use of tests of this sort.[1] It also is estimated that at no time did more than 10–12 per cent of the total broadcast advertisers over national networks resort to contests. By December, 1932, the vogue had passed and the number of contests continuing on the air had been greatly reduced.

The contests broadcast were principally of several types: the word-building contest; the contest wherein the listener was required to write a letter regarding the points of superiority in the sponsor's product; the limerick contest and the puzzle or riddle. The letter type of contest was the first to win prominence. This form is exemplified by the contest sponsored by the Cudahy Packing Company in the spring of 1932 for one of their products, Old Dutch Cleanser. In this instance an 18-carat white-gold diamond ring with a $\frac{1}{2}$-carat diamond was given out each week for the best letter on the subject of "Why Old Dutch Cleanser Is the Only Cleanser I Need in My House." There was no prerequisite to entering the contest.

The word-building contest almost invariably follows one formula. The contestant is given either the name of the company or its slogan, and is instructed to make from it the longest possible list of standard English words, the longest list being adjudged the winner. In more recent contests the listener has been confined to three-letter English words, probably because of the difficulty involved in counting and checking the longer lists resulting from a freer choice of words. In most cases the list must be accompanied by one or more tops of cartons containing the sponsor's product, or a like number of facsimile drawings of the same. The latter is introduced so that the contest may not fall within the provisions of the lottery laws. To be legal a contest must not have a price of admission as a requirement for entry, nor can any prize be awarded on chance alone. Some element of skill or merit must be involved. The announcement regarding the facsimile drawing meets the former of the two provisions, while the test of skill involved either in word-building or the writing of a letter meets the other.

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[1] E. P. H. James, manager of sales promotion, National Broadcasting Company.

Contests have been much less prevalent on local broadcast advertising programs. Of a group of 52 station managers giving their experience regarding contests, 37.5 per cent stated that they had not had any of them on local periods.[2] Other than this there seems to be no difference between network and individual station experience in this field.

The value of contests is a mooted question. To the sponsor seeking fan mail, they are an effective means of meeting his wish. Likewise, they temporarily increase the sale of the product, due to the fact that the average listener will buy a package of the sponsor's brand in order to secure the necessary carton top, rather than go to the trouble of drawing a facsimile. On the other hand, the mail response received by a contest is hardly an indication either of the popularity or the selling value of the program. It is merely a measure of the popularity of the specific contest among the listeners who have heard the program. If the contest is difficult or the prizes small, the response will be slight. If the prizes are attractive and the requirements reasonable, the listener interest should be relatively large. Experienced agency executives are mostly of the opinion that contest mail is at least partially controllable in quantity by means of the requirements laid down for entry. Moreover, at the height of the contest craze, there was reason to doubt whether the listener response came principally from the regular audience or from the professional contestant, of whom there were a large number. Contest magazines even flourished for a brief period.

The temporary increase in the sale of the article connected with the contest is gratifying while it lasts. However, there are grave questions as to its ultimate value. In a sense, the contest acts as an introductory offer. But it is an introductory offer based upon an incentive other than the inherent value of the product itself. Rather, it is associated with the hope of receiving something for nothing. The purchaser has never been sold on the merits of the article and consequently the basis for a continued purchasing habit has not been set up within him. The contest over, he may never buy another box of the article. Moreover, since his interest has been focused not upon the product but upon the prize which is being offered, it is quite possible that the listener may be highly irritated at not having won anything. In this case the contest becomes an agent of ill will for the manufacturer. There is little doubt that this occurs to some degree in almost every contest. Moreover, the extent of this dissatisfaction is probably greater than usually realized. The danger of its occurrence can be lessened to some degree by the inclusion of a large number of small prizes among the awards.

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[2] See Appendix B for detailed questions.

Another effect of the contest has been to unduly lengthen the announcement in the program and to fill it with cumbersome and uninteresting details. These details have been a source of irritation to listeners who have not been interested in the contest, and, in addition, have taken away from the amount of time which could be devoted to selling the article itself. In the more extreme cases the situation presented itself where the sponsor was advertising the contest rather than the product, which received only incidental mention. Networks and agencies both have been opposed to contests, and for the most part have employed them merely upon the insistence of their clients.

Compared to the contest, the special offer, in its various forms, is a much more effective medium to be used in conjunction with a broadcast advertising program. Every interested listener receives something. In addition, no long and complicated announcement is required to present the details of the offer. Moreover, both the offer and the announcement which it entails are integral parts of the advertiser's sales message. They are not extraneous to the main purpose of selling as much of the product as possible by convincing people of the desirability of its purchase.

The use of the offer also allows greater variation, and consequent greater novelty and distinctiveness, than does the contest. There is a greater opportunity either for direct sampling or, at least, for product tie-in. Fire hats to dramatize the Texaco Fire Chief Gasoline, puzzle pictures for children, mixing spoons for housewives, eye cups for users of borax, bridge score pads, beetle ware glasses to be used in the bathroom, and similar items are examples in point. It is easier to connect the offer with the retail outlet than in the case of the contest, since the store can be made the point of distribution and not merely the place where entry blanks may be received. A combination of the special offer and contest principles is found in the offer which is contingent upon the solution of some problem such as the solving of a puzzle. In such an instance the puzzle is made as simple as possible in order to insure its solution by as large a number of people as possible. The advantage of this type of offer is that it introduces an element of play into the proceedings, and further ministers to the listener's sense of accomplishment. It is estimated that approximately half of the concerns whose business warrants such activity, i.e., manufacturers of convenience goods, are using some form of offer at the present time.[3]

Another aspect of the question of securing the maximum effectiveness from the broadcast advertising program by engaging in various subsidiary activities is the so-called merchandising of the program. The accepted trade meaning of the term includes two groups of closely related activities: (1) various steps taken to promote dealer interest in the program and to point out its value to the individual retailer; and (2) activities having for their purpose the building up of increased listener interest by means other than the program proper. Neither terminology nor practice in this field is clearly defined, though the preceding description will serve as a starting point.

The question of building up increased listener interest in the program, or of calling attention to the program through agencies other than broadcasting, forms the simpler of the two problems and will be considered first. The means open in this field comprise largely other forms of advertising. General newspaper and magazine tie-ins, where the program is mentioned as part of the general advertisement, seem to be the most prevalent form to be used in this field. In the spring of 1931, approximately half of the program sponsors on the National Broadcasting Company networks made this part of their advertising procedure. One-third of the companies followed a similar practice with regard to their magazine advertising, while another third made the practice of inserting special "spot-light" advertisements in the newspapers, devoted exclusively to calling attention to their program.[4] Other types of program tie-ins employed in relation to the listener include "Thanks notes" to listeners who write, envelope stuffers, direct mail to selected groups of listeners (usually carried on through the dealer), car cards, the publication of house organs, and similar items.

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[3] E. P. H. James, manager of sales promotion, National Broadcasting Company.

At times highly ingenious methods are devised. Thus, in the case of a milk company, attention was called to the program by means of a cardboard collar placed around the neck of each milk bottle delivered by the company in seven states. In the case of the Wrigley "Lone Wolf Tribe" program broadcast for children, a number of Indian chiefs were sent to various schools to speak on Indian lore.[5] There was no direct tie-in with the program, either in the way of mentioning the sponsor or even of mentioning the program itself. In spite of its indirectness, the method was generally satisfactory. A variation of this method which has achieved great popularity in recent months has been the public appearance of the program artists in theaters throughout the country and, at times, the actual production of the broadcast from the theater stage. These and similar devices are employed, the specific method varying with the sponsor, his program, and his product. Efforts of this type are more prevalent in the case of network programs than on the part of individual stations, though their use is growing among local advertisers.

Of even greater interest are the steps taken by advertisers to secure dealer co-operation either in pushing the radio program or in building up dealer interest in the program. Radio broadcasting is still a comparatively new advertising medium. As a result, the dealer interest in ventures of this type is high. Agency executives report that a radio program gives a company prestige with its dealer organization which cannot be achieved to a like degree by any other method. Consequently, this becomes an especially important aspect of broadcast advertising and it is imperative that the dealer should be fully informed regarding the program. This can be accomplished by means of special portfolios given to salesmen and illustrating the high lights of the broadcasting series. It can be done through the use of direct mail to dealers, the presentation of the program at dealers' or salesmen's conventions, the use of house organs and by like methods. It is surprising, at times, the extent to which so simple a practice is overlooked. In a number of instances where important companies had sponsored radio programs, surveys indicated that less than 60 per cent of the dealers seemed to be aware of the fact that the company was broadcasting.[6]

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[4] *Broadcast Advertising,* Vol. II (National Broadcasting Company).

[5] "Merchandising a Radio Program," by Paul W. Kesten, Columbia Broadcasting System, in *Radio and Education* (1932), pp. 87–89.

Interesting the dealer in the radio broadcast advertising program on his own part, however, is merely the first step in promoting the program through retail channels. More important is securing dealer co-operation in the setting up of displays, the sending of direct mail literature, and similar steps which will assist in building up the listener audience for the program. Surveys again indicate a willingness on the part of dealers to accept material of this type and a lack of enterprise on the part of advertisers in making the most of their opportunities in this direction.[7] In a group of 500 druggists surveyed by the National Broadcasting Company, 76 per cent of those replying to the questions stated that they wanted pictures of radio personalities as features for window and counter displays, 56 per cent wanted pictures of the product to be used for the same purpose, while 51 per cent desired to have the displays so constructed as to make possible the insertion of the article itself. There seemed to be a slight preference for window display as against counter display material.

In the case of network broadcasting the activities outlined thus far comprise the principal features to be used by advertisers. In their actual use, the network plays a passive part. Both national networks strongly recommend activities of this type, and both of them have display rooms showing what other clients have done. Their own merchandising departments are always ready to assist the advertiser and his client in any manner possible, though confining their activities to a strictly advisory capacity. There is no attempt in any instance to take an active and leading part in planning the advertiser's program in this field.

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[6] *Merchandising Radio to Dealers,* National Broadcasting Company.

[7] "Druggists tell us—," a study by the Merchandising Division of the National Broadcasting Company.

The advent of spot broadcasting gave rise to interesting developments with regard to the dealer contact and other promotional service rendered by individual stations to their clients. Stations tended, on the whole, to follow newspaper procedure in this field, and went a great deal farther than did the networks. They voluntarily assumed a number of distribution burdens of the advertiser which hardly could be termed broadcast advertising, and usually performed them at no additional cost. Of a group of 50 stations questioned as to the form of promotional service which they rendered in the fall of 1932,[8] 17.5 per cent replied that they had no service of this type while another 17.5 stated that they participated only in an advisory sense. The remaining 65 per cent engaged in some type of activity with regard to promoting the program. Of the group carrying on such service, 64 per cent arranged for the showing of posters and displays in retail outlets, 59 per cent sent letters to the trade telling of the program—though one third of them charged the sponsor for the postage—while 58 per cent called on dealers for a similar purpose.

Other activities mentioned included the broadcasting of preliminary announcements of the program; announcements in the station's daily news period; including the program in the station's newspaper advertising; publishing programs in the station's own news bulletin; securing dealers for the company; making telephone surveys of the program's effectiveness; conducting market surveys for the sponsor; checking on sales within the territory; furnishing talent for personal appearances; helping with fan mail; addressing sales meetings and similar items. Some of the more ambitious stations conduct practically all of these activities, maintaining a large staff for that purpose, furnishing the advertiser with numerous and complete reports, and rendering generally valuable service. One station has even gone so far as to organize a fleet of fourteen motor cars manned by expert sales promotion men, together with two specially equipped display trucks, to render dealer contact service to their clients. These operate in a territory embracing three middle western states, as well as parts of several others.

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[8] See Appendix B for detailed questions.

Though this service is quite valuable and highly appreciated by the advertiser, there is a grave question as to how far the broadcaster should venture in this field. If newspaper experience is to be repeated, the broadcaster will greatly overexpand his service in this direction, and then will be obliged to contract it. Experienced broadcasters, possessing newspaper advertising and promotion background, state emphatically that this will be the case. As practiced at the present time, the station merchandising service is in substance a form of price-cutting. It performs tasks for the advertiser which are only remotely related to the item for which money is being paid. The distribution of displays and solicitation of the trade regarding a new radio program is an important advertising function, but it is a duty which devolves upon the advertiser and his agency and not upon the station. The function of the station is to furnish the most effective program possible and to broadcast it in the best possible manner. At that point its responsibility ends.

It is quite true that the station may be better situated to contact dealers than is the advertiser himself, or that the program may gain greater prestige from the use of this method. On the other hand, if such service is rendered, it should be charged for accordingly and should not be included in the time revenue. Its inclusion in the time charge is all the more unsound because it tends to hide the cost of the service from both station and advertiser and to promote undue expansion of activities in this field without adequate recompense to the station. Therefore, if any promotional and dealer contact service is to be rendered, it should be carried on only upon due compensation.

The question of getting the greatest possible effectiveness out of the broadcast advertising program is broader than any of the detailed activities hitherto described. Fundamentally, it involves a close correlation of the program, both as to basic idea and details of construction, with the rest of the advertising campaign. At times the radio presentation may dramatize the central theme of the entire campaign, as in the case of Ed Wynn and the Texaco Fire Chief program. In other cases it may be an institutional undertaking designed merely to supplement the main campaign and to build up general goodwill. In some instances it may serve to reach special groups within the community, and in still other cases to accomplish a specific purpose such as winning a hearing for the company's salesmen. The uses to which the broadcast advertising program can be put are many and varied, and its effectiveness depends primarily upon the skill with which it is employed.

PART IV

EVALUATION AND CONCLUSIONS

CHAPTER XV

AMERICAN BROADCASTING AND THE PUBLIC INTEREST

The approach to the discussion of the various phases of American broadcasting has been from the viewpoint of its rôle as an advertising medium. Broadcasting has been considered as being one of a number of media of mass communication by means of which the advertiser could reach the public. Accordingly, the problems involved in its use for that purpose have received primary consideration, though the broader aspects of structure and service have been treated wherever they possessed bearing upon the former question.

Since no medium of mass communication can be considered merely in the light of its ability to carry an advertising message to potential customers, the approach has been a limited one. Media of mass communication, such as radio and the press, possess an element of public interest which transcends their usefulness in advertising. Newspapers and magazines constitute agencies for the dissemination of information and entertainment (the latter is true of magazines more than of newspapers) which are of fundamental importance to the community. The advertising is merely the means by which they are enabled to render this service and, at the same time, to receive a reasonable return on their investment.

In this respect, American broadcasting is in no different a position from that of the press. Like it, broadcasting renders a service more important than the dissemination of advertising messages. Every day it carries entertainment into millions of homes. It constitutes a means of direct and almost instantaneous communication with great portions of the American public, the value of which was strikingly illustrated in the recent financial panic.[1] Furnishing such service constitutes the chief justification of the existence of radio broadcasting in any form. Broadcast advertising is important primarily because it makes possible this service, and only to a secondary extent because it assists in the sale of goods and the carrying on of the processes of trade. Because of this relationship of advertising to American broadcasting, the problems of the former become the concern of advertiser and public alike.

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[1] Following the closing of the Michigan banks some weeks earlier, American finance reached a state of demoralization by March 3, 1933, where it became necessary to declare banking holidays in practically all of the important financial states of the nation. A state of financial panic existed. Under such conditions, public confidence reaches its

The propriety of magazines and newspapers deriving their main support from advertising revenue has never been questioned very seriously. Likewise, it has seldom been suggested that the insertion of advertising matter in periodicals has had an undesirable effect upon the service rendered the reading public. In the case of radio broadcasting, both questions have been raised to a serious degree and have even found their way into the halls of Congress.[2]

The prominence given to this matter in the field of broadcasting is due to a number of reasons. One of them is the fact that broadcasting wave-lengths are limited in quantity. Thus it is more difficult for a group of individuals to secure a station for themselves than to issue their own newspaper or magazine. The problem of the public interest is therefore more complicated in the case of broadcasting than with respect to the press. A second reason is the fact that broadcasting is the most direct of all advertising media. In it, the sales message stands isolated in point of time. It cannot be glanced over or turned aside as easily as can a page of advertising in a periodical. Consequently, to those who dislike advertising, it will be more irritating than similar material appearing in a magazine and newspaper, even though its message is inherently no more objectionable than is some of

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low ebb. Yet, before the full force of the news had impressed itself upon the consciousness of the American people, the forceful handling of the emergency in President Roosevelt's inaugural address on March 4, and the reassuring promise for speedy action—brought directly into millions of homes—immediately laid the groundwork for restored public confidence as no other act could possibly have done. The effect of this broadcast was further reinforced when the entire nation heard the passage of emergency legislation direct from the halls of Congress on Thursday, March 9, and when, on the following Sunday, the President explained directly to the people the significance of the measures taken.

[2] The Dill-Couzens Resolution (Senate Resolution 129), instructing the Radio Commission to investigate American broadcast advertising, and the Fess Bill (died in committee), requiring 15 per cent of the wave-lengths to be given to educational interests, are examples in point.

the printed advertising.[3] Moreover, the agitation on this point has been given considerable impetus by the activities of certain publishing and educational groups within recent years.[4] Finally, broadcasting by government-owned or closely controlled monopolies, financed by taxation, has been the system in vogue in many European countries. This is in direct contrast to the United States, where a privately owned and competitively operated broadcasting system is maintained on the basis of revenue derived from advertising. The records of the principal foreign broadcasting systems, however, have been advanced by some as reasons for adopting similar principles in this country.

With these objections being raised against American broadcasting, and with certain groups advocating government ownership and operation of broadcasting stations and networks, it becomes necessary to inquire as to whether the system in vogue is the best adapted to meet conditions in the United States, or whether a superior one might be devised and put into operation. The chief characteristics of the service rendered to the listener by broadcasters in this country have been presented, and constitute a partial answer to the problem. It also is necessary to compare the service afforded by American broadcasting to that rendered by the systems in operation in the principal foreign nations which might be considered as facing conditions analogous to those in the United States. These systems include those of Great Britain, Germany, and Canada, primarily, though brief mention also should be made of French broadcasting.

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[3] The amount of material which might be objected to on the grounds of content is probably much less than that appearing in almost any leading magazine, were one to read the copy completely. Thus, in one issue of a leading women's monthly magazine, one is told to beware of the "pink toothbrush"; shown pictures of germs which lodge in the throat; given numerous lengthy instructions regarding the preservation of beauty; told that "cathartics should be used only as a last resort"; that one will "do it better on dated coffee"; has pictured for one the unpleasantness of a person with a cold sneezing near one; is regaled with the sad plight of the young woman whose underthings have not been washed properly so as to take away perspiration odors; is told of numerous ways to guard the breath; is informed as to the proper tissues; warned of the danger of a "lordosis backline"; told of the bases of incompatible marriage in some detail and initiated into other similar problems. As they are presented and attended, the majority of these advertisements do not seem objectionable. On the other hand, when read in detail, the effect at times becomes decidedly unpleasant. There is comparatively little material on the air at the present time which might be termed this type.

[4] The propaganda of the Ventura Free Press and the National Committee on Education by Radio, Washington, D.C., are examples in point. Both organizations have been extremely violent in their position and have been especially prone to ignore even the most obvious facts which did not fit into their preconceived viewpoints. Since the latter has been closely allied to the National Educational Association and various parent-teacher groups, its repeated expression of bias has done much to hide the true situation regarding American broadcasting.

Next to the United States and Denmark, Great Britain is the most important country in the world with respect to radio broadcasting. In August, 1932, there were 4,821,436 radio licenses in effect in Great Britain, a number equal to 10.7 per cent of the country's population.[5] Calculated on the same basis, American radio-set ownership equaled 13.0 per cent, and that of Denmark 13.4 per cent,[6] of the total population.

Though presenting entirely different problems from those of the United States, Denmark possesses one of the most interesting broadcasting systems in the world. It is government owned, carries no advertising, and presents a program structure remarkably well adapted to the needs of its people. At half-past ten every morning the fish prices are broadcast from Copenhagen, being quoted for that city, as well as for the Hamburg, Stockholm, Rotterdam, and Amsterdam markets and the English and Baltic ports. Every fisherman has a radio on his boat, and thus is able to convey his catch to the most profitable market. Ample time is given to entertainment as well as to more serious programs. There is one dramatic program called "The Family Hansen" which has achieved great popularity. It is of the "Real Folks" type of entertainment and combines comedy with folk drama. Another program to win a wide following is that of a comedy monologue, wherein the artist satirizes everyone and everything, including the prime minister and ruling family.[7] The system works ideally in Denmark, though there is no indication that it could be applied with equal success to the United States.

The British broadcasting system, likewise, is a form of government monopoly, though in this instance there is a greater similarity between its broadcasting problems and those arising in this country. The maintenance and operation of the system is vested in the British Broadcasting Corporation, a public corporation without share capital, organized under Royal Charter, and acting as trustees for the national interest. The company is therefore a government-inspired monopoly. Its connection with the government is further enhanced by the fact that it comes under the supervision of the postmaster general, to whom it is required to present an annual report and whose rulings it must obey.

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[5] *B.B.C. Yearbook, 1933*, p. 88.

[6] *Ibid.*

[7] Address by Senator Clarence C. Dill of Washington, rebroadcast by the Columbia Broadcasting System from London, England, May 31, 1931.

The company likewise is required to broadcast any material which the government desires to have disseminated among the public and to refrain from presenting other items when so ordered.[8]

British broadcasting is financed by means of a license fee on sets amounting to $2.43 annually. Not all of the funds so collected are employed in maintaining broadcasting facilities and producing programs in the interests of the listening public. A large portion of the total revenue goes to the post-office for general expenses and is never expended upon broadcasting. Moreover, as the revenue has increased, it has been the post-office, primarily, which has benefited. Thus, in 1927, out of tax receipts of £800,959, the corporation received 67.2 per cent. In 1929 it was accorded 64.2 per cent of the £944,301 received in that year from listeners.[9] In 1932 it received but slightly in excess of 50.0 per cent of approximately £2,400,000 collected in set taxes in that year.[10] Thus the increased set ownership and consequent revenue which has been built up through the activities of the British Broadcasting Corporation programs is reinvested in listener service to only a very slight degree, and is used for the most part in meeting some of the general expenses of the government.

Besides the amount turned over to the post-office, an additional sum, equaling 18.7 per cent of the total B.B.C. revenue in 1929, was paid to the government in the form of an income tax. Finally, administrative expenses seem to be rising faster than revenue, so that a continually smaller portion of total funds seems to be devoted to programs themselves.[11] How much of this is due to the station construction policy of the B.B.C. is hard to say in view of the limited data.

With regard to the collection of the taxes, the British have experienced difficulties mildly akin to the enforcement of the Prohibition Amendment in this country. In 1931 it was estimated that there were 400,000 bootleg sets in London alone, a figure which at that time equaled almost 10 per cent of the total number of set licenses issued.[12] The corporation's yearbook of that season goes to great lengths to chide listeners who have not paid their fee, devoting one whole section to its discussion. The post-office, however, is more practical and has devised a means of combating the situation. Trucks equipped with set-detecting apparatus are sent periodically to various towns, and the offenders caught in this manner are brought into court and fined. The desired effect is always attained, and for a brief period there is a marked increase in set registrations in that community.

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[8] *Broadcasting Abroad*, National Advisory Council on Radio in Education, pp. 27–28.

[9] *B.B.C. Yearbook, 1931*, p. 36.

[10] *Ibid., 1933*, p. 87.

[11] *Ibid., 1931*, p. 37.

There is no subsidiary revenue derived from advertising programs, since none are broadcast. This does not mean that they may not be broadcast, but that the management of the British Broadcasting Company has consistently refused to accept advertising of any sort. In a supplementary agreement regarding the powers of the B.B.C., made in October, 1923, the corporation was permitted to receive a consideration for broadcasting "commercial information approved for broadcasting by the Postmaster General, subject to such conditions as he may prescribe." As far as can be determined, the issue has never been carried to that official.[13]

Though the various reports of the B.B.C. sedulously avoid mention of the subject, it is by no means certain that all listeners are in favor of prohibiting advertising over British stations. Some of the popular magazines[14] in the radio field have been outspoken on this point, and have even gone so far as to discuss the problems which would be involved in the presentation of advertising programs over the corporation's stations. In the past year the corporation itself seemed to have sensed the seriousness of this tendency (serious at least from its own viewpoint) and devoted six pages of the current yearbook to a discussion of why broadcast advertising should not be allowed.[15] Arguments advanced included the fact that listeners would not like the programs, that broadcasting is not a satisfactory advertising medium, that it would set up competition with the press, and similar items. One of the most interesting aspects of this whole question is the extent to which British listeners tune in on Radio Paris, a French station over which several English phonograph-record companies advertise consistently, and where a large number of announcements are made in English for the benefit of listeners across the channel.[16]

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[12] *Ibid., 1932*, p. 29.

[13] *Printer's Ink*, November 20, 1924, p. 49; *Wireless Magazine* (London), July, 1931, p. 597.

[14] *Wireless Magazine*, July, 1931, p. 597.

[15] *B.B.C. Yearbook, 1933*, pp. 54, 59, 62-64.

The structure of British broadcasting is at present in a state of transition. When completed it will include five high-power, twin-wave stations which will blanket the entire United Kingdom. One wave will be for national programs, broadcast over all stations simultaneously, and the other for local programs. At the present time the plan is only partly completed, so that sixteen stations of varying power are being used to cover the country.[17]

Data on the actual composition of British programs are not available later than 1930, a summary of which is found in Table XLVIII.

Careful perusal of the lengthy discussions of various types of programs which appear in the annual editions of the *B.B.C. Yearbook* and of such actual programs as have been available for inspection make possible at least a broad general evaluation of the quality of British programs. It is evident that more time is devoted to classical music than in this country, though there is reason to question whether much of it reaches the high standard available to American audiences in the best broadcasts here. Opera has not been developed to the extent that it has in the weekly Metropolitan Opera broadcasts. Though symphonic concerts are more frequent, nevertheless none of the programs show the admirable balance found in the average offering of the New York Philharmonic, Boston Symphony, and Philadelphia Orchestras.[18] The numbers presented undoubtedly are designed for the tastes of English audiences, so that comparison on this point is difficult. However, there is a tendency toward less variety in the British concert series than in this country.

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[16] *Variety*, December 6, 1932, p. 35.

[17] *Radio Markets of the World, 1932*, U.S. Department of Commerce, p. 96.

[18] The Promenade Concerts in the 1931 season, under the baton of Sir Henry Wood, showed a tendency toward concentrating completely upon one composer in each program, and of combining numbers on a program which would never appear together in this country. In addition to the natural featuring of British music there was much more of the Bach-Handel type than would be found in the United States, and less modern offerings. However, B.B.C. itself has pioneered admirably in this field.

With regard to educational programs, the British surpass this country in quantity, and until recently, at least, in quality of presentation. A feature of special interest has been the organization of listening groups in connection with the adult educational talks. These groups meet together to hear given programs and later to discuss them. They are under the direction of trained leaders and are given added assistance by means of pamphlets especially prepared for use in conjunction with the broadcasts. This form of activity is based upon the strong adult education movement which originated in Great Britain more than fifty years ago, and which constitutes an important factor in English life.

TABLE XLVIII*

PERCENTAGE OF PROGRAMS OF VARIOUS TPYES PRESENTED BY BRITISH BROADCASTING CORPORATION DURING THE SEASON 1929–30

TYPE OF PROGRAM	PERCENTAGE OF TOTAL HOURS	
	National	Regional
Serious music	21.4	22.2
Light music	18.3	34.8
Variety music	4.1	4.7
Dance bands	10.5	19.7
Gramophone records	4.5	2.0
Total music	58.8	83.4
Drama	1.9	1.7
Talks and readings	9.2	1.6
Schools: education	2.8	....
Adult education	2.2	3.1
News and running comments	9.2	8.6
Religious services	5.5	1.1
Appeals	0.2	0.2
Children's hour	5.6	....
Special transmission	0.4	0.1
Pictures	4.4	0.2
Total	100.0	100.0

* *B.B.C. Yearbook, 1931*, p. 43.

In serious drama, also, there is a tendency for English programs to excel, though they are correspondingly weak in mystery drama, comedy, and in the historical presentations which are so important in American broadcasting. The folk drama program, of the "Country Doctor" type, likewise is missing. It is interesting to note that in 1931 a negro pair named "Alexander and Mose" appeared on B.B.C. programs and won no little popularity with an act closely resembling "Amos 'n' Andy.[19]

With regard to popular programs, the British broadcasts are much weaker than are those of stations in this country. If there is any criticism to be leveled at English programs it is that they give too little attention to presentations of popular interest, even as the American broadcaster may err in the other direction.

The daily program structure of the B.B.C. does not seem to be any better balanced than those of national networks in this country, even though varying markedly as to the type of material broadcast. This is indicated in the schedule of the National (Daventry) Station on Sunday, August 16, and Wednesday, August 19, 1931.

Sunday, August 16, 1931[20]

A.M.—	10:30	Time signal
P.M.—	3:00	Recital. Soprano, violin, and piano
	3:45	Miss Phyllis M. Potter. For the Children. "Fifteen Minutes in Palestine"
	4:00	Missionary Talk
	4:15	Central Band of H.M. Royal Air Force
	5:30	Piano recital
	6:00	English Eloquence (Second Series)—VIII—A Speech on The Triumph of Irish Independence, delivered on April 16, 1782, by the Rt. Hon. Henry Grattan
	6:30	Welsh Service
	8:00	Studio Service conducted by the Rev. H. R. L. Sheppard
	8:50	News
	9:05	Arthur Benjamin, piano, and the B.B.C. Light Orchestra
	10:30	Epilogue (Devotional Period)

Wednesday, August 19, 1931

A.M.—	10:15	Daily service
	10:30	Time signal
P.M.—	12:00	Gramophone Records
	12:45	Organ Recital

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[19] *B.B.C. Yearbook, 1932*, p. 193.

[20] *The Listener*, August 12, 1931, p. 268.

1:30–2:30	Light Music
3:30	Symphony Concert
4:45	Organ Recital
5:15	Children's Hour
6:00	Dance Orchestra
6:15	News
6:40	Foundation of Music
7:00–7:20	Sir Daniel Hall. Talks on Farming—XVIII
8:00	Promenade Concert
9:40	News
10:00	Mr. George Grossmith.—"My Apprenticeship at Hollywood"—II
10:15	Orchestra
11:00–12:00	Dance Music

These programs are typical of the English daily structure and show little if any superiority over the balance and variety of the American daily broadcasts. The chief disparity between the two lies in the type of programs broadcast rather than in any other feature.

Another question which might arise regarding the program service of the two systems is the extent to which each of them have presented outstanding programs. In this regard the latest data available for the B.B.C. are for the last week in October, 1932, while the American program information available nearest that date is for the last week of November of the same year. In so far as the political broadcasts earlier in the fall would have distorted the picture for this country, the comparison of these two dates is probably a better one than if the same week had been used in both cases.

During the last week of October, the British Broadcasting Company presented the following outstanding programs:[21] *Sunday:* None. *Monday:* First winter concert of the B.B.C. Symphony Orchestra. *Tuesday:* "Nor' West" special radio play by L. duGarde Peach; International String Quartet. *Wednesday:* B.B.C. Symphony Orchestra in Queen's Hall, with Mischa Elman as soloist. *Thursday:* Jack Hubbert and His "Folks." *Friday:* First of Political Debates—"Disarmament." *Saturday:* Public Chamber Music Concert in Broadcasting House Concert Hall; Lionel Fertis and Solomon playing the sonatas of Bax and Brahms.

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[21] *B.B.C. Yearbook 1933*, p. 224.

Programs broadcast over the key stations of the three national networks in this country during the week beginning Sunday, November 27, 1932, included the following outstanding events:

Sunday: "Adventures through Fire and Ice," Father Bernard Hubbard, Alaskan explorer and missionary; "The Pasteur Institute and Its Work," Pierre le Comte duNuoy, of the Pasteur Institute, speaking from Paris; "Dangerous Corner," a play by J. B. Priestley; Leon Trotzky, speaking from Copenhagen, Denmark; concert by the New York Philharmonic Orchestra; concert with Ernest Hutcheson, pianist, and the Columbia Symphony Orchestra.

Monday: Dramatization of *David Harum;* Radio Guild Drama—"Tartuffe"; light opera—"The Mikado"; "Balancing the Budget in Europe with Unemployment Insurance," Dr. Fritz Rager, University of Vienna, speaking from Vienna.

Tuesday: "A College Course for the Unemployed," Dr. William Mather Lewis, president of Lafayette College; "Redistributing Functions of State and Local Governments"—Professor Paul W. Wagner, University of North Carolina, O. Max Gardner, governor of North Carolina, and Harry F. Byrd, ex-governor of Virginia; Curtis Institute of Music Symphony Orchestra; Song Fest at Town Hall, New York City, led by ex-Governor Alfred E. Smith; Symphony Orchestra, John Charles Thomas, baritone, soloist.

Wednesday: Mischa Levitzki, pianist and concert orchestra; Eastman School of Music Symphony Orchestra, Dr. Howard Hansen conducting; tribute to Mark Twain on the 97th anniversary of his birth.

Thursday: "The Founding of Vassar College," C. Mildred Thompson, dean; American Museum of Natural History Talk: "Coral Forests."

Friday: Musical Appreciation Hour with Dr. Walter Damrosch; talk by Hendrik Willem Van Loon; "March of Time" program—dramatized news events.

Saturday: Performance of "Elektra" by Richard Strauss—the first performance of this opera by the Metropolitan Opera Company; New York Philharmonic Orchestra Children's Concert; "Should War Debts Be Collected or Cancelled?" talk by Alfred P. Sloan, president of the General Motors Corporation and chairman of the Committee on Consideration of Intergovernmental Debts.

It will be noted that the outstanding events on the American broadcasting program compare very favorably with those on the British schedule. In both cases the weeks chosen are average periods and are fairly representative of the season as a whole. Thus American broadcasters provide program service over longer periods of the day than does the British Broadcasting Corporation; offer a program schedule just as well balanced as the English one though differing greatly as to content; and manage to present, on the average, at least an equal number of outstanding broadcasts of more than ordinary interest.

Two minor differences which should be of interest are, first, the tendency of British programs to have an interval of several minutes between them,[22] and second, the extremely formal method of announcing numbers and artists.[23] With regard to the first of these a B.B.C. report complains of the difficulty of timing programs within a thirty-second limit, which is current practice in this country. and also advances the opinion the listeners do not wish one program to follow too closely upon another in so far as the succeeding presentation may disturb the mood created by the one which went before it. In the case of the latter, it is British practice not to make announcements between numbers, at least on concerts originating elsewhere than in their own studios, so that the listener who has tuned in late remains in ignorance as to the program which he is hearing.[24]

One of the greatest distinctions between British and American broadcasting systems is in the attitude toward the presentation of controversial material. In the United States, the greater freedom of debate is allowed over the air. The bitter political controversy carried on over national networks and individual stations by all parties in the recent presidential election is illustrative of the degree to which all opinions may be broadcast in this country. What is true in the field of politics pertains to other fields as well. Speakers may advocate the cancellation of war debts in spite of the fact that the government has officially opposed such action. Debates take place in the fields of economics, religion, politics, and social theory. Stations exist for the express purpose of battling chain-store development, while the Socialist party has its own station in New York City. Speakers such as Leon Trotzky are brought to the American listening public by a great national network.

All of this is in decided contrast to English practice. "Political, industrial, and religious controversy" were prohibited from the start of British broadcasting,[25] and it was not until after fierce discussions in Parliament in 1928 that the ban was lifted to any degree at all. Following this, discussions or symposiums were allowed on political and economic questions, though to a limited degree. In its 1929 *Yearbook* the British Broadcasting Corporation stated[26] that "Theoretically it is now possible to broadcast talks upon all controversial subjects, but great care must still be exercised in the choice and handling of subjects. . . . . It would be a misuse of such a privilege to allow it to be a vehicle of unchallenged partisan statements."

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[22] *B.B.C. Yearbook, 1932*, pp. 115–16. [23] *Ibid.*

[24] Announcement made over the Columbia Broadcasting System on occasion of the rebroadcast of an all-Bach concert from Queen's Hall, London, August 24, 1932.

[25] *B.B.C. Yearbook, 1929*, pp. 39–41.

The first political broadcast in England occurred in April, 1928, upon the local Government Bill, with the party in power seeing to it that it received the last word upon all occasions. Evidently the bars had not been let down sufficiently to please the British listener, for in its 1932 report the B.B.C. defended its course in this field in the following manner:[27] "Those who think progress is slow, should remember that unless it is gradual it will not find acceptance among the millions of listeners who in the first five years of B.B.C.'s existence became accustomed to a colorless treatment of rather neutral subjects, and the avoidance of controversy altogether." Even now speeches are carefully censored, even when the person in question is a foreign government official,[28] and only recently the head of the British Broadcasting Corporation's speaker's bureau was dismissed for progressive political beliefs.[29]

The retarding influence of such an attitude is well illustrated by the information received by the British and American people with regard to the Geneva Disarmament Conference from their respective broadcasting organizations. During the entire course of the proceedings, seven programs were relayed to England:[30] five by Vernon Bartlett, the B.B.C. commentator, one by the Bishop of York, and one by Arthur Henderson. During the same period approximately sixty programs were relayed by the two national network companies to American listeners. Representatives of China and Japan, the Foreign Minister of Italy, M. Tardieu of France, Chancellor Bruening of Germany, Arthur Henderson of England, and other prominent figures were brought before the microphone. When it was found that Chancellor Bruening had hurriedly left for Berlin, an American broadcasting representative followed him there and arranged for him to speak from that point. The difference in service rendered by the two systems was so pronounced that the *London Daily Herald* delivered a scathing criticism of the B.B.C. on the subject, demanding to know why it had not done better in reporting the conference to the British people.[31] Thus, in the field of practical education with regard to public affairs, American broadcasting shows marked superiority and preserves to a much greater degree the principle of free speech than does British broadcasting.

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[26] *Ibid.*, p. 59.

[27] *Ibid., 1932*, p. 103.

[28] *Radio in Education, 1932*, p. 210.

[29] *Ibid.*, p. 209.

[30] *Ibid.*, p. 211.

The general situation with regard to German broadcasting, at least prior to the advent of the Hitler régime, was similar to that in England. The administration of the system was somewhat different. German broadcasting was more decentralized, being divided into nine districts, one for each major subdivision of the country. The stations were owned by the post-office, though private program companies operated the various stations. These companies, in turn, were bound together in the Reichs-Rundfunk G.m.b.H., the parent company of the system. The actual program policy was further supervised by the government through the use of advisory committees, so that probably less freedom of action was to be found in Germany than in England.[32] Revenue was raised principally by taxation which amounted to approximately $6.00 a set.[33] Total set registration was only half as great in proportion to population as in the case of the United States.[34]

In the case of German broadcasting a limited amount of advertising is allowed. However it is restricted to the period of from 8:15 to 9:00 o'clock in the morning and is confined to brief announcements regarding the product. At times advertising may be continued until the noon hour. Foreign manufacturers are not allowed to advertise at all.[35]

Recently the administration of German broadcasting was placed completely in the hands of the government, the Reich buying such securities as were privately held. It now owns 51 per cent of the stock in the Reichs-Rundfunk and its subsidiaries, while the six largest states hold 49 per cent of the securities.

[31] *Broadcasting*, June 1, 1932.

[32] *New York Times*, August 14, 1932.

[33] *Radio Markets of the World, 1932*, p. 4.

[34] *B.B.C. Yearbook, 1933*, p. 88.

[35] *Radio Broadcasting in Europe*, Bureau of Foreign and Domestic Commerce, p. 9.

The object of the new move was stated to be that of freeing broadcasting from politics, especially interstate.[36] How this is to be accomplished is not clear.

In the field of program service, German broadcasters seem to be enterprising and wide awake. There is a great deal of interchange of programs between the various local stations, as well as with other European countries. Program hours devoted to entertainment and information of different types broadcast during the year of 1931 are as shown in Table XLIX.

TABLE XLIX*

PERCENTAGE OF HOURS OF VARIOUS TYPES OF PROGRAMS BROADCAST BY THE REICHS-RUNDFUNK IN 1931

Type of Program	Percentage of Hours
Music and entertainment	39.0
Phonograph records	19.0
Literature	5.5
News and other reports	13.1
Lectures	14.5
Morning devotions	1.6
Children's programs	4.7
Women's programs	1.6
Agricultural programs	1.0
Total programs	100.0

* *Rundfunk Jahrbuch*, 1932, p. 139.

The exact significance of the table is not quite clear, especially since the proportion of musical entertainment seems uncommonly low. Nor is it in agreement with other program data published by the Reichs-Rundfunk. In this case the program hours broadcast by the Berlin station in 1930 constituted 64.5 per cent music, 22.7 per cent talks, 11.2 per cent literature, and 1.6 per cent miscellaneous.[37] Both program summaries therefore must be interpreted with a certain amount of circumspection.

An examination of German program data as found in the annual yearbooks of the Reichs-Rundfunk indicates the existence of excellent programs of classical music, probably equal to those of any other country in the world, and a similar strength in the field of education. It is estimated that 20,000 German schools are equipped with radios.[38] Broadcasts to school children totaled eight periods a week in 1930.[39] Adult educational programs also are presented usually between the hours of six and eight o'clock at night.

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[36] *Broadcasting*, September 1, 1932.

[37] *Die Entwicklung des deutschen Rundfunks in Zahlen, 1923–1930.*

The German broadcasting day is more varied than is the British, and more closely approximates our own programs in this respect. The day's program begins at 5:50 A.M. with weather forecasts for the farmers.[40] Following this there is a half-hour of setting-up exercises. At 6:30 a concert and variety period is broadcast, and by 8:00 o'clock there comes a second agricultural period. Since the day in question is Sunday, one hears the chimes of the Potsdam Church at 8:55, following which there is an hour of morning devotions. After the services, there is an organ concert, an open forum for older people, and some more music. Shortly after noon a sports broadcast is relayed from the Nürnberg Stadium, and at 3:00 o'clock the Davis Cup Tennis match between Germany and the United States is broadcast. While this is being presented, some of the stations carry alternate programs of classical music, folk tales and folk drama, and other sports broadcasts. This continues until 7:00 P.M., following which dramatic and musical programs are broadcast until 10:00 o'clock when a sports résumé is presented of the day. From then on, dance music is played until midnight. The program is very similar to the average American broadcasting day and seems to be neither superior nor inferior to it.

In the field of political broadcasting, Germany has shown even less tolerance of controversy than has England. While British policy has been passive and has given no one access to broadcasting facilities, German policy has made the radio stations of the country available only to the ruling party. In the German elections of the spring of 1932, Chancellor Bruening used the broadcasting system to great advantage in promoting the re-election of President Hindenburg, while prohibiting any of the opposition from resorting to the radio to reach the voting public.[41] With the Nazis in power, an even stricter censorship of broadcasting may be expected. With the exception of its political aspects, German broadcasting seems to hold a slight edge over the British system, but does not have any marked advantages as compared with American structure and practice.

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[38] *Radio in Education, 1932,* p. 199.

[39] *Broadcasting Abroad,* National Advisory Council on Radio in Education, p. 60.

[40] *Rundfunk Jahrbuch, 1930,* pp. 345–54.

[41] *Radio in Education, 1932,* pp. 200–201.

Very little information is available regarding French broadcasting, which does not seem to be very highly developed. A dual system of control is in operation in the country, the government maintaining one group of stations and private enterprise another. It is reported that the privately owned stations, which accept advertising, are prosperous.[42] As stated before, several French stations are broadcasting special programs for British listeners, advertising English phonograph records, and that these stations have built up a large audience among the British listening public.

The Canadian system is especially worthy of consideration in an evaluation of the listener service rendered by various systems of broadcasting in use throughout the world. Not only does it represent a compromise between the American system and the European type of broadcasting, but also, because of its being contiguous to the United States, is of the greatest interest to American broadcasters. Until recently the Canadian system was one of private enterprise, similar to this country. However, during the summer of 1932 the report of the Canadian Royal Commission on Radio Broadcasting, recommending government ownership and operation of stations, was passed by the Provincial Parliament. A commission of three members was created to supervise broadcasting and to produce the necessary programs. Advertising was not prohibited, but was limited to 5 per cent of the entire program time.

The Royal Commission's report is an interesting one and reveals the motives which dictated the action of the Royal Commission and Parliament. The report states as its first conclusion that, though there is a diversity of opinion regarding many factors in the radio situation, there is unanimity on one fundamental question—"Canadian radio listeners want Canadian programs."[43] This, says the commission, has not been done by private enterprise. Stations are located in urban centers and do not give rural coverage; there is too much advertising, and a duplication of service. The Commission continues that the majority of programs heard are from sources outside of Canada, and that their continued reception will tend "to mould the minds of the young people in the home to ideals and opinions that are not Canadian." It therefore suggests the following means whereby broadcasting can be carried on "in the interests of Canadian listeners and in the national interests of Canada": (1) the establishment of one or more groups of stations operated by private enterprise in receipt of a subsidy from the government; (2) the establishment and operation of stations by a government-owned and -financed company; and (3) the establishment and operation of stations by the provincial governments. Out of these three possibilities, only the second category remains.

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[42] *Broadcast Advertising in Europe,* U.S. Department of Commerce, p. 6.

[43] "A Proposal for Public Ownership of Radio," *Education by Radio*, May 26, 1932, pp. 69–72.

It is quite easy to see the rising tide of Canadian national consciousness in the report. It was American programs and advertising which crossed the border and entertained the Canadian audience. This, in turn, must have fostered the sale of American goods at a time when Canada was becoming more and more intent upon the development of her home markets. It is rumored that there were other factors operative in the situation. Even more important than the above, was the newspaper opposition to radio broadcasting and the belief on the part of western listeners that they were not receiving adequate service under the private enterprise system.[44] The nationalism theory wins greater credence when one examines the Commission recommendation that the Provincial government insist upon a more equitable division of the broadcast band with the United States.[45] This is proposed in spite of the fact that Canada has three times the facilities per capita and only one-sixth the wattage per channel as does the United States.[46] Thus it is indicated clearly that complete use has not been made of the facilities now possessed by Canada.

The usual governmental restriction upon freedom of speech raises its head in one of the recommendations of the Commission, which states that, "While we are of the opinion that broad-

[44] *Variety*, October 11, 1932, p. 55.

[45] *A Proposal for Public Ownership of Radio*, p. 71.

[46] O. H. Caldwell, former U.S. radio commissioner, present editor *Electronics*, and *Radio Retailing* (*New York Times*, May 15, 1932).

casting of political matters should not be altogether banned, nevertheless, we consider that it should be very carefully restricted under arrangements mutually agreed upon by all political parties concerned."

The early operation of the Canadian system has not been encouraging to its progenitors. In the first place, the expense has been heavy and the revenue disappointingly small. Under the plan finally adopted it is intended to build seven 50,000-watt stations blanketing most of Canada and to supplement these with four or five low-powered stations. The construction cost of such a program is no less than $3,225,000, while the yearly operation, exclusive of talent costs, will amount to $2,500,000.[47] Allowing for 600,000 receiving sets,[48] each of which must pay a tax of $2.00 annually, a revenue amounting to $1,200,000 is possible from this source. With continued depression, the receipts from taxes may fall short of this figure. In addition to this revenue the government has given the broadcasting authorities a subsidy of $1,000,000 with which to begin operations. Some advertising revenue also will be received, the Commission optimistically estimating this at $700,000. These sums total $2,900,000, which is considerably short of the maintenance and capital expenditures which will be required during the next several years. Thus the financial outlook for the new system is not very bright.

The financial restrictions outlined previously came into evidence early in the new régime. In December, 1932, the new Commission announced that it would be impossible for it to carry chain programs as far west as Vancouver,[49] one of the things demanded by western listeners. In March of the current year, however, it bought three stations in that area, though it has indicated no intention of connecting these in a network link at the present time.[50] Other difficulties have beset the new Commission. Its first broadcast brought a protest from the musicians' unions that non-union labor was being used, and from French-Canadian members of Parliament that not enough French had been spoken on the program.[51] There also are rumors that the press views with disfavor the granting of $1,000,000 subsidy to a government-owned competitor. Should Canadian broadcasting succeed and a volume of advertising be built up, the press problem will become very much more severe and may even imperil the entire system.

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[47] *A Proposal for Public Ownership of Radio,* p. 72.

[48] *Radio Markets of the World, 1932,* p. 54.

[49] *Variety,* December 13, 1932.

[50] *Philadelphia Bulletin,* March 8, 1933.

[51] *Variety,* February 7, 1933.

Thus, faced with inadequate funds, limited program resources and newspaper antagonism, the future of the Canadian system promises to be a precarious one. Unless it can secure revenue from advertising, it is almost certain to be unable to raise sufficient funds to carry out the relatively modest plan which it has set for itself. On the other hand, if it does succeed as an advertising medium it will face increasing opposition from the press. Since the press is powerful politically, and the Commission is a minor creature of the state, it is almost certain to lose this contest.

These, then, are the principal systems which could be adopted by the United States in lieu of the system of private enterprise at present operative here. A careful examination of all of them fails to reveal any marked advantages over the American system, and, in addition, indicates several disadvantages, especially in the realm of free speech. Other disadvantages include a tendency to give people the kind of programs which the government thinks they should have rather than the kind which they really desire, less of a variety of programs than is furnished the listener under a system of private enterprise, a tendency to become bound by convention, and a tendency toward less efficient coverage than has been built up in countries where government broadcasting has not been the rule.[52] It seems, therefore, that in spite of its shortcomings the American system of broadcasting is best adapted to meet American conditions. To the degree which its programs lack balance, they do so on the side of the masses. Moreover, such error as exists in this direction can be rectified easily and simply without a fundamental change in structure. In addition to these considerations, American broadcasting leads all of the nations in the extent to which it brings public issues before the people, and in the degree to which it provides a forum for a discussion of the questions of the moment.

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[52] L. D. Batson, of the Electrical Equipment Division of the Department of Commerce, sums up these disadvantages in splendid fashion in *Radio Markets of the World, 1932*, pp. 5–6.

Even were a system of governmental ownership and operation desirable, which is by no means the case, the expense involved in setting up and operating such a system would constitute an important obstacle to its ultimate realization. So, also, would the problem of national versus state control. It is estimated that a national system capable of supplying three programs to the entire country would cost no less than $120,000,000 to instal, and another $100,000,000 annually for cost of technical operation.[53] At least another $25,000,000 would be required for programs if they were to be kept up to their present standard of excellence. This would make a cost of $245,000,000 for the first year, exclusive of wire charges and similar miscellaneous expenses. A more simple structure might be reared in the way of a chain of high-powered stations covering the country and a series of less powerful state-operated stations to render local service. Such service would require an initial investment of $50,000,000 and an annual maintenance cost of about the same amount. It is not clear from government estimates whether this cost covers the construction and operation of state stations as well as national units or whether it is confined to the latter. There are other difficulties with this system. Among them are the problems arising out of the control of broadcasting by 49 different governments, the scarcity of adequate talent in certain states and the probability that state and national broadcasting would become one more field in which political patronage might be exercised. Moreover, any system of government control and operation would give rise to the political problems so evident in all European broadcasting. Because of these factors, as well as by reason of its fundamental soundness from the viewpoint of listener service, there is little danger that the American system of broadcasting will be changed radically in the near future.

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[53] *Commercial Radio Advertising*, Federal Radio Commission, pp. 2–3.

CHAPTER XVI

PROBLEMS CONFRONTING AMERICAN BROADCASTING IN ITS RÔLE AS AN ADVERTISING MEDIUM

Though American broadcasting has been shown to compare favorably with the systems in vogue in principal foreign countries, there is still ample room for improvement in its use as an advertising medium. This is true both from the viewpoint of the listener service rendered by the American system and with regard to its efficiency as an agency for conveying the advertiser's message to the radio audience. Since the approach throughout this study has been to consider radio broadcasting primarily as a means of advertising, it is necessary to present conclusions regarding the manner in which the problems confronting the medium in this phase of its activity may be handled most effectively. Primarily, these problems are confined to the following fields: (1) the future market for broadcast advertising; (2) the broadcasting structure available for use by advertisers; (3) the program service and technique employed in advertising and sustaining programs; (4) commercial practice with regard to station and network relations with advertisers; and (5) the question of the future regulation of the industry as it relates to advertising.

With regard to the future market for broadcast advertising, several factors stand forth clearly. The first of these is that radio broadcasting has definitely proved its worth, as is indicated by the continuous increase in the expenditures made by advertisers over the medium and by the high degree of success achieved by those who have employed it skilfully. Even more important, however, is the observation that broadcasting has passed through the pioneer stage of its existence.

Every new product or service, which has been soundly conceived from the viewpoint of its basic utility, at the outset of its history experiences a period of phenomenal growth. During this period the segments of the public to whom the new product is of the greatest utility and who are best able to purchase it are turning to it from other products. In this stage of its development the novelty of the new article, together with its basic utility, gives it at least a temporary advantage over more established products. However, when this first market has been exploited, the rate of growth in sales decreases, and the product has reached its normal level in the competitive field. From now on it can win an additional share of the market only by fierce competition with the substitute and unlike products which compete with it for the purchaser's dollar.

This is the position in which radio broadcast advertising finds itself at the present moment. Its first growth is over and it has become an established medium. Its future growth must be won largely at the expense of the other major advertising media with which it competes. This means primarily magazines and newspapers. Competition between radio, newspapers, and magazines will become all the more severe because of the fact that advertising budgets are being scanned more carefully than ever before and more specific results are being demanded of all media. Advertising appropriations have been curtailed severely since 1929 and promise to remain at their new level for some time to come.

In this competition radio must stand squarely upon its own feet. It must organize itself as efficiently as possible and must seek to hold its share of the nation's advertising expenditure by rendering the maximum service possible in keeping with the return which it receives. Radio cannot take halfway steps in this direction. It must be sold—intelligently, courageously, and without apologies regarding competition with other media which have been too frequent in its promotion in the past. Behind this intensive selling effort there must exist a scientifically developed service, which has been brought to the highest possible peak of efficiency through the co-operative effort of the entire industry. This attitude is fundamental to any further extension of the market for radio broadcast advertising in competition with other media.

As to the nature of the industries utilizing radio broadcasting for advertising purposes, little fundamental change can be expected. Convenience goods—such as foodstuffs, cigarettes, soft drinks, cosmetics and many proprietary remedies—will continue to comprise the backbone of broadcast advertising.

This is indeed fortunate; for these industries tend to fluctuate less in sales than does the general run of trade and, because of this, advertise more steadily.

Broadcast advertising need not be confined to products of this type. There is definite room for the cultivation of class markets for high-priced goods by means of radio. The advantage of being able to create goodwill through the program, the ability to dramatize the product, create prestige for the company by the excellence of the presentation; win attention to the advertisement by means of placing attractive entertainment next to it in point of time or of interweaving the two; these are factors which can be adapted to the sale of high-priced specialty goods almost as readily as they can in the convenience goods field. Likewise, the ease of listening as against reading, the effect of the voice personality of the announcer and the ability to build a personal contact between the advertiser and listener, the elasticity of coverage enjoyed by broadcasting, and its efficacy in stimulating dealer interest and co-operation are as important in the sale of articles of class appeal as with regard to a cheaper article of wider distribution.

Moreover, the absolute number of listeners of the class purchasing these more expensive articles who can be reached by means of broadcasting is large enough to warrant the effort, even though they may constitute a relatively small percentage of the total listening audience. The principal problem is that of building the right kind of program for this group, a matter which should be able to be solved by careful study and the exercise of ingenuity.

Another market which possesses important possibilities for future expansion is the field of retail advertising over the radio. In retailing, two items are being sold to the consumer: the product itself and the general service of the store. Radio broadcasting is especially effective in building up store loyalty because of the goodwill which it engenders. It makes possible the development of a personality on the part of the store. When intelligently used, it may be employed effectively as a means of direct selling. This field is an undeveloped one, partly because of retailer reluctance to experiment and partly by reason of the broadcaster's own lack of appreciation of the best manner in which to sell and service retail accounts. The only means by which this market can be tapped in the future is for the broadcaster to study retail problems with the greatest possible care and to learn to adapt the working of his medium to retail needs. In this way new forms of retail utilization of broadcasting facilities will be discovered and the value of radio to the merchant will be enhanced.

The problem of improved program service is of paramount importance to the future of broadcast advertising. It must be admitted that thus far broadcasters have not made the most intelligent use of the program material available to them. There has been a lamentable lack of originality in the program field. The precedents of the stage, concert hall, and motion pictures have been followed too closely. There has been too much of a temptation to build programs for quick resale rather than to experiment with new forms of fundamental importance. It therefore is vitally important that broadcasters experiment in the direction of developing individual forms of music and script programs especially fitted to radio. It is the program which is the chief salable commodity in the possession of the broadcaster today. This is especially true of the network, where the problems of coverage have largely been solved. Nevertheless, the networks thus far have been grossly delinquent in the development of new program material, and have been content for the most part to copy one another and to follow the established routine of other forms of entertainment.

From the viewpoint of the individual broadcasting station the program problem is a more difficult one to solve. In many cases satisfactory talent is not available. Similarly, the financial resources necessary to experimentation are not always present, though there have been several notable examples where this difficulty has been overcome by enterprising management. In this instance the electrical transcription company can render important service. The furnishing of electrical transcriptions for sustaining programs, at prices which small stations can afford to pay, is one of the most important factors which can be developed in the independent field. Its effect would be marked with regard to the improvement of the general level of programs broadcast. It is recognized, however, that the difficulties involved in such an undertaking are numerous.

Another means whereby the program service of the individual station can be improved is through co-operative action in the construction of programs and in the interchange of program ideas among non-competing stations. It is doubtful whether actual scripts and arrangements could be exchanged, at least at the outset. However, program ideas, such as one for a striking St. Patrick's Day broadcast, or a special feature for Thrift Week, could profitably be circulated among the co-operating stations. Not only would the interchange of such ideas improve the programs themselves, but it would add materially to station advertising revenue. Special groups of advertisers could be persuaded to join in the Thrift Week program, or in other similar presentations. Since an undertaking of this sort involves a large measure of co-operative effort, it may be that the activities of the group could be extended into the field of station representation. On the other hand, the exchange of programs might be carried out by a strong trade association, possessing a comprehensive and carefully planned policy of economic as well as political activity.

The future of the broadcasting structure of the country depends largely upon one factor: namely, the North American Conference which will be held sometime during 1933 for the purpose of reallocating radio broadcasting facilities among the various North American countries. This is of vital importance, since at the present time Mexico is not operating on any assigned frequencies, but is shifting about to suit its taste, while Canada is demanding a larger share of available facilities. Because of these factors it is almost certain that a basic reallocation of wave assignments will take place in this country following the Conference. It may even be that additional frequencies will be added to the portion of the wave spectrum available to broadcasters. On the other hand, it may merely mean that it will be necessary to utilize existing facilities with greater efficiency than has thus far been done. No matter what the outcome, it will have important bearing upon the future of broadcasting as an advertising medium. It therefore is necessary that the broadcasters arrive at a sound plan which may be set before the Conference, and that they, as well as other radio interests, will be adequately represented at the meetings—both by the government and in their own right.

Another matter of fundamental importance, both with regard to improved listener service and greater advertising efficacy, is the necessity of developing higher-powered stations in the United States. Stations ranging from 100 kilowatts upward to the limit of their technical efficiency, and operating on cleared channels, are necessary for the rendering of adequate service in rural areas. Likewise they are one of the most economical methods covering whole trading areas.

This procedure is costly and requires huge financial resources. It therefore is especially well adapted for development by national networks. High-powered stations, owned by the networks and located strategically throughout the country so as to give maximum coverage, would make of the network a magazine of the air. It also would help to do away with the troublesome problem of station delivery which the network faces at the present time. The affiliated station still could be kept as part of the network structure for purposes of intensive coverage. It might also be that many affiliated stations would desire to secure sustaining programs from the network proper upon payment of a fee such as that recently instituted by the National Broadcasting Company. This would make of the network both an advertising medium and a program service.

Whether high power is developed or not, there are a number of fundamental readjustments which must be made in network structure. Station ownership and control is essential to network stability unless more satisfactory relations can be developed with member stations. The rate structure must be readjusted on sound economic lines, if either high power or better network-station relations are to be achieved. It is essential from every viewpoint that the present unscientific rates, which charge too little for metropolitan outlets and relatively too much for outlying stations, be changed fundamentally in the near future.

In addition to this, networks must be sold to the advertiser on the basis of their total coverage, at least within the basic area. The advertiser must be made to view them as one national medium rather than as a group of stations from which one may be subtracted and another added more or less at will. Networks have been too prone to sell their wares in this manner, and thus have served to aggravate the split-network problem. This attitude of mind on the part of network sales departments also has tended to overemphasize the question of station delivery.

In the field of spot broadcasting, no definite answer is possible. Either the special station representative will grow in strength or else the integrated spot specialist will keep him in the background. On the other hand, the co-operative network may be the answer to the problems in this field.

It is safe to say in summary, therefore, that the radio broadcasting structure of the future will be more elastic even than at present and that it will be more readily adaptable to the specific needs of a given advertiser.

With regard to commercial practices, the principal problem affecting the future development of radio broadcast advertising is the maintenance of rates on the part of the stations of the country. If this is not done, the progress of the industry will be greatly impeded. Since price-cutting brings with it the temptation to cut the quality of the program and to accept business of doubtful value, it tends to cheapen the entire industry and to cause broadcast advertising to lose prestige. Since advertising is founded upon respect for and confidence in the advertiser and the medium, such a tendency would do tremendous harm to the development of broadcasting.

In the immediate future there will be a great temptation for broadcasters to extend service to advertisers to a degree out of keeping with the revenue derived and to engage in activities not logically a part of a station's functions. This tendency must be discouraged, since it amounts in substance to an especially insidious form of price-cutting, and since it unduly inflates station expense. Where service legitimately should be rendered, the station should be ready to do so, but it should not do the work of the advertiser or his agency without charging for it.

Two other problems exist in the field of commercial practice. The first of these relates to the development of adequate coverage and circulation data, and the second to the rise of sound methods of station promotion and sales administration. In the field of broadcasting, the question of circulation is much more complicated than in the case of a newspaper or magazine. The newspaper is limited in delivery only by the extent of the mail service. Likewise, it is supposed that all subscribers read their papers. Therefore, a measure of the number of subscribers to a periodical is usually taken as a satisfactory indication of the number of its readers. This by no means guarantees how many people will read the advertiser's own insertion in the periodical. In the case of broadcasting, no such accurate method has thus far been developed. Scientific methods for measuring station coverage, i.e., where the station can be heard if people care to listen to it, have been devised. A beginning has been made toward the determination of a station's circulation from among the listeners residing in its coverage area. However, much remains to be done with regard to both factors. Eventually it will be necessary to set up an Audit Bureau of Circulation for broadcasting similar to that in the periodical field.

The second problem in this category centers about the question of the selling of radio broadcasting service to the client. In the past there has been little constructive selling and a great deal of order-taking. With increased competition this no longer may be the case. Salesmen must know what broadcast advertising can be expected to accomplish and how it can best be used. They must be aware of its place in the general distributive program. Their efforts must be directed toward the best prospects and they must be supplied with adequate information regarding the station and the medium as a whole.

In addition to the various problems within the industry proper, there also exists the question of the degree of regulation which should be applied to radio broadcasting and the direction which it should take. During the past eighteen months several proposals have been made to regulate the content of the advertising message, especially as to its length. It is doubtful whether such a procedure is sound. In response to a question addressed to them by the Federal Radio Commission as to whether it would be practicable to restrict advertising on a radio program to the mere mention of the sponsor's name, all 51 of the leading advertising agencies of the country replying to the query answered in the negative.[1] The restriction of advertising content with respect to quantity is not the solution of the commercial announcement problem, if such a problem exists. It is not the length itself, but the words used, which causes a commercial announcement to offend the public. Moreover, the field is of a type which cannot be regulated effectively by legislation, but must be guided mainly by the rule of reason. With helpful guidance from the Federal Radio Commission, and with the co-operation of the industry itself, the less desirable features of commercial announcements will be removed without further legislative enactment.

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[1] *Commercial Radio Advertising,* Federal Radio Commission, pp. 165–201.

A field of regulation which may look to be important, unless stations exercise more care than is being shown by some of them at the present time, is that of unethical practices in advertising. The advertising of dubious patent medicines on a per inquiry plan and similar practices are examples in point. If stations do not abandon these voluntarily they should be forced to do so by higher authority. Since for the most part these are minor violations and should not be punished immediately by revocation of the broadcaster's license, it may be necessary to devise a new series of penalties including suspension and fine for infraction of regulations.

Another matter of basic importance to the industry is the extension of station licenses for a period longer than six months, for which time they are usually granted at present. This introduces an element of uncertainty into the industry which causes no end of unnecessary confusion. Theoretically, an offending broadcaster may lose his entire business six months after his license has been granted, in spite of the fact that he has built up a profitable undertaking during the period in which his station has been in operation. This penalty is so severe that it is enforced only in extreme cases. A longer period of licenses, three years, for example, would be a much more logical form of regulation. If combined with minor penalties for small infractions, it would insure a higher quality of regulation. Moreover, it would save the broadcaster a great deal of legal expense and would help to curtail the work of the Federal Radio Commission. Finally, the high standard of technical regulation at present in force must be continued.

In facing these problems, the radio broadcasting industry has two choices. The first of these is for each station to proceed along its own lines, and for progress to be achieved by the gradual transmission of information from one station to another. The other is to plan a course of co-operative action, wherein the networks and great majority of stations will combine resources and ability in the solution of their mutual problems.

The basis for co-operation already has been laid in the joint action of broadcasters with regard to the music copyright controversy and in their mutual defense against unwise legislation. These problems were crucial, each in their turn; and, indeed, copyright still remains one of the critical matters to be solved by the industry. The economic problems outlined in the preceding paragraphs are equally important to the continued growth of the industry, even if they are not as spectacular in nature. Broadcasting and broadcast advertising today are at the crossroads. The first lusty growth of the industry is over. If it is to keep its virility and to continue to grow, then the problems of its program service, its structural relations, and commercial practice must be attacked co-operatively. As competition among media grows more severe, radio broadcasting must be sold upon the basis of exact knowledge and actual performance, and its service must be made as efficient as possible. This requires combined, not individual, effort.

Some of the specific problems which must be attacked in a united manner are: standard accounting, coverage and research data, and sales management procedure; the collection of general information regarding the use of radio broadcasting and the success with which it has been employed; the development of statistical indices which will trace the course of spot as well as of network business; the fostering of basic research in the psychological, program, and economic aspects of radio broadcasting; the establishment of a standard order blank, agency recognition and a credit bureau; the creation of program exchanges by noncompeting stations; and similar matters.

Problems such as these must be attacked co-operatively if the industry is to achieve the full measure of success possible. With regard to their solution, the individual stations have more in the way of common interest than diversity of purpose. Consequently they constitute a sound basis for unified action. There are approximately 600 broadcasting stations in the United States, providing a splendid opportunity for a compact and well-organized trade body functioning in the economic as well as political field. The basis for an organization of this scope exists in the present association of broadcasters, though its program of activity remains to be enlarged, made more scientific, and less opportunistic.

In any joint action, the rights of all types of broadcasters must be respected. The problems of small independent stations and large regional broadcasters, of independent stations and network companies, must receive equal consideration. At times there may be a temptation for the larger and more important broadcasters to overlook the importance of the small local station. It is this class of station, however, which constitutes the backbone of broadcasting, rendering service to numbers of communities, and actively identifying themselves with the economic social, and political life of the areas which they serve. The improvement of these stations, and the safeguarding of their interests, is every bit as important as is the progress of the larger and more spectacular units of the industry.

What broadcasting needs is a planned program for the next four or five years. Though true with respect to every industry, this is especially advisable for radio broadcasting because the particular characteristics which it possesses make it an ideal field for planned co-operative action. This program should embrace the following major points:

1. The establishment and maintenance of standard trade practices throughout the industry.
2. The setting up of machinery within the industry which will permit the collection of economic and other data capable of being used by stations and networks in selling their services in competition with other media.
3. The encouragement and support of fundamental research in the various technical, economic, psychological, and artistic phases of broadcasting, the results of which will be of assistance in the improvement of the service rendered by the medium to the advertiser and the public.
4. The development of machinery whereby the facts collected by the industry and the results attained from research can be circulated as widely as possible among the various stations, and whereby individual stations may receive special assistance in overcoming their specific problems.
5. Every effort should be made by the industry to perfect the machinery of effective self-government, to the end that the highest possible standards of broadcasting may be maintained and that the minimum of outside regulation will be required. In this manner the maximum degree of freedom for constructive action will be made possible.

With such a program, carefully planned and courageously followed, the future progress of radio broadcasting both as an advertising medium and a constructive social force in the community should largely be insured and any threat of possible stagnation obviated.

APPENDIXES

APPENDIX A

List of stations co-operating in the study, either by answering the questionnaire sent to 165 station managers, furnishing more detailed information, or granting the writer the courtesy of an interview and examination of their plant and methods.

LIST OF STATIONS ANSWERING BROADCAST ADVERTISING QUESTIONNAIRE

Station Call Letters	Location	Nighttime Power in Watts*	Network Affiliation
KTAR	Phoenix, Ariz.	500	NBC
KECA	Los Angeles, Calif.	1,000	NBC
KFAC	Los Angeles, Calif.	1,000	None
KFI	Los Angeles, Calif.	50,000	NBC
KGFJ	Los Angeles, Calif.	100	None
KFBK	Sacramento, Calif.	100	CBS
KJBS	San Francisco, Calif.	100	None
KGEK	Yuma, Colo.	100	None
WDRC	Hartford, Conn.	500	CBS
WRC	Washington, D.C.	500	NBC
WTOC	Savannah, Ga.	500	CBS
WAAF	Chicago, Ill.	500	None
WEBQ	Harrisburg, Ill.	100	None
WHBU	Anderson, Ind.	100	None
WFBM	Indianapolis, Ind.	1,000	CBS
KFNF	Shenandoah, Iowa	500	None
WLBF	Kansas City, Kan.	100	None
WSMB	New Orleans, La.	500	NBC
WCSH	Portland, Me.	1,000	NBC
WEEI	Boston, Mass.	1,000	NBC
WJBK	Detroit, Mich.	50	None
WWJ	Detroit, Mich.	1,000	NBC
WFDF	Flint, Mich.	100	None
WJDX	Jackson, Miss.	1,000	NBC
KGIR	Butte, Mont.	500	NBC
KGVO	Missoula, Mont.	100	None
KFAB	Lincoln, Neb.	5,000	CBS
WJAG	Norfolk, Neb.	1,000	None
WOKO	Albany, N.Y.	500	CBS
WFBL	Syracuse, N.Y.	1,000	CBS
WBT	Charlotte, N.C.	25,000	CBS
KFYR	Bismarck, N.D.	1,000	NBC
KDLR	Devil's Lake, N.D.	100	None
WDAY	Fargo, N.D.	1,000	NBC
WLW	Cincinnati, Ohio	50,000	NBC
WTAM	Cleveland, Ohio	50,000	NBC
WSPD	Toledo, Ohio	1,000	CBS
KOIN	Portland, Ore.	1,000	CBS
WHP	Harrisburg, Pa.	500	CBS
WGAL	Lancaster, Pa.	100	None
WKJC	Lancaster, Pa.	100	None
WFI	Philadelphia, Pa.	500	CBS
KQV	Pittsburgh, Pa.	500	None
WJAS	Pittsburgh, Pa.	1,000	CBS
WGBI	Scranton, Pa.	250	None
WEAN	Providence, R.I.	250	CBS
KGRS	Amarillo, Tex.	1,000	CBS
WOAI	San Antonio, Tex.	50,000	NBC
KDYL	Salt Lake City, Utah	1,000	NBC
KGA	Spokane, Wash.	5,000	NBC
WIBA	Madison, Wis.	500	NBC
KDFN	Caspar, Wyo.	500	None

* As of June 30, 1932.

STATIONS EITHER SUBMITTING DETAILED DATA OR INTERVIEWED

Station Call Letters	Location	Nighttime Power in Watts	Network Affiliation
KMJ	Fresno, Calif.	100	None
KNX	Hollywood, Calif.	5,000	None
WENR	Chicago, Ill.	50,000	NBC
WMAQ	Chicago, Ill.	5,000	NBC
WMBD	Peoria, Ill.	500	CBS
WCAO	Baltimore, Md.	250	CBS
WJR	Detroit, Mich.	50,000	NBC
WMBC	Detroit, Mich.	100	None
WNAC	Boston, Mass.	1,000	CBS
WCCO	Minneapolis, Minn.	5,000	NBC
KFBB	Great Falls, Mont.	1,000	None
WBEN	Buffalo, N.Y.	1,000	NBC
WGR	Buffalo, N.Y.	1,000	CBS
WKBW	Buffalo, N.Y.	5,000	CBS
WABC	New York, N.Y.	50,000	CBS
WEAF	New York, N.Y.	50,000	NBC
WJZ	New York, N.Y.	50,000	NBC
WLW	Cincinnati, Ohio	50,000	NBC
WHK	Cleveland, Ohio	1,000	CBS
WFBG	Altoona, Pa.	100	None
WCAU	Philadelphia, Pa.	10,000	CBS
WFAA	Dallas, Tex.	50,000	NBC
KOMO	Seattle, Wash.	1,000	NBC
WRJN	Racine, Wis.	100	None

SUMMARY OF STATIONS SUPPLYING INFORMATION FOR STUDY OF BROADCAST ADVERTISING

Zone	Network Affiliates			Independent Stations			All Stations		
	Answering Questionnaire	Supplying* Other Data	Total	Answering Questionnaire	Supplying Other Data	Total	Answering Questionnaire	Supplying Other Data	Total
I	8	8	15	1	....	1	8	8	16
II	6	4	10	6	2	8	12	6	18
III	6	1	7	....	....	....	7	....	7
IV	8	4	12	8	1	9	16	5	21
V	9	1	10	1	3	4	10	4	14
Entire country	37	18	54	16	6	22	53	23	76

* Either supplying detailed information or furnishing data by means of an interview.

APPENDIX B[1]

QUESTIONNAIRE AND ACCOMPANYING LETTER SENT TO 165 BROADCASTING STATION MANAGERS

QUESTIONS FOR PURPOSE OF STATION CLASSIFICATION

1. Call letters..................Power..................watts. Location..................
2. Full or part time operation..................If part time, hours operation..................
3. Chain or chains with which affiliated..................

QUESTIONS AS TO WHO ARE THE SPONSORS OF RADIO ADVERTISING OVER YOUR STATION

NOTE.—Please confine answers to other than network programs broadcast over your station.

1. Have there been any marked trends or changes in the types of industries or companies sponsoring programs over your station in the past four or five years? If so what are they?

2. To what extent, if any, have national advertisers been spotting programs over your station in recent years? Has this been on the increase or not? Has it been largely transcriptions or live talent business?

3. In your opinion or experience, has your local or chain business increased most rapidly during the past four or five years? What reasons do you believe explain this trend? (*This question for chain affiliates only.*)

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[1] These questions have been kept general in deference to station managers, for whom the supplying of more detailed information would have entailed considerable expense, if it had not been completely impossible.

4. Is it your impression that the turnover among your station clients has been on the increase or decrease during the past four or five years? What do you think are the reasons for this trend?

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5. How do your rates compare with those of 1929? Have they increased or decreased, and if so, approximately what percent, using one quarter-hour nighttime program, one broadcast, as the basis of your estimate?

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QUESTIONS REGARDING WHEN BROADCASTING IS USED FOR ADVERTISING PURPOSES

1. Approximately what proportion of your local business remains on the air during the summer? Has the amount of summer radio advertising over your station increased, decreased, or remained about the same since 1929? If increased, has it done so faster than winter business?

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2. Has your summer business tended to concentrate in certain industries or types of business? If so what?

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3. What is your best day of the week as far as volume of advertising is concerned? Your poorest? Has there been any shift in the use of broadcasting for advertising on different days of the week that you have noticed since 1929? If so what?

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4. Which is the greater, and by approximately how much, your volume of morning or afternoon commercial broadcasting time? Which of the two has increased the most rapidly during the past year?

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....

5. Does your daytime broadcasting tend to be concentrated in certain types of industries, and if so what kinds? Have you noticed any special trend in this field during the past several years?

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....

6. Which has increased the more rapidly during the past year, your daytime or nighttime business? Why in your opinion?

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7. Has there been any tendency toward increasing sponsorship of programs repeated on more than one night of the week? Has this been confined to any specific kinds of programs? Is the trend keeping up or not?

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8. Has there been any marked tendency toward sponsors presenting more than one program a day over your station? For instance, a daytime one for housewives and a general entertainment one at night, or is this largely confined to chain broadcasting?

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QUESTIONS REGARDING THE KIND OF PROGRAMS BROADCAST BY STATIONS

NOTE.—This again is to be confined to non-chain programs since chain information has been collected.

1. What have been the chief trends in the kinds and types of programs broadcast over your station since 1929? For instance, has the proportion of popular music increased; is there a marked trend toward comedy or old-fashioned music; what has been the trend in drama, etc.? Is there a greater variety of programs or more of a concentration on certain types? If so what? (Please be as specific as possible in answering this question.)

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2. Is there any marked difference between the commercially sponsored and sustaining programs as to type or characteristics? Do the commercial sponsors as a group sponsor as wide a variety of different kinds of programs as you do in your sustaining periods, or do they tend to concentrate on certain kinds of programs? If the latter, what kind do they prefer to sponsor?

....

....

3. What is the trend in the length of program over your station? Is the quarter-hour continuing in popularity as much as in the past, or is the half-hour tending to come back? What, in your opinion, are the reasons behind such trend as there may be here?

4. In your opinion or experience, have the commercial announcements been getting longer or shorter over your station since 1929? What has been the trend especially in the past six or eight months?

5. Has there been any marked change or changes in the type of announcement during the above period? If so, what? Are there any special reasons for this change?

6. What has been the trend in the use of contests and special offers by sponsors over your station, especially during the past year? Approximately what proportion of your local sponsors resort to contests or offers? In your experience, what value, if any, do they have?

QUESTIONS REGARDING STATION SERVICES TO SPONSORS

1. What specifically do you do in the way of assisting to merchandise a sponsor's program? Give examples if possible.

2. What program service does your station offer clients? Have you been taking an increasing or lesser part in the preparation of clients' programs during the past several years? What, specifically, do you do in this field?

QUESTIONS REGARDING STATION RELATIONS WITH THE PRESS

1. What has been the attitude of the newspapers of your community toward the publication of station programs since 1929? Please be as specific as possible in describing this trend.

2. Is your station affiliated with any newspaper? Does any newspaper broadcast over your station? If so, what is the nature of the arrangement?

QUESTIONS REGARDING ELECTRICAL TRANSCRIPTIONS

1. Has there been an increase or decrease in your electrical transcription business during the past year? Approximately how much?

2. Has the commercial sponsorship of electrical transcription programs been principally by local concerns, national advertisers spotting programs on local stations of their own accord, or local dealers advertising national products? Has there been any trend in one direction or another in this field during the past year or so? If so, what?

3. Approximately what proportion of your commercially sponsored transcriptions are on evening programs? Is it more or less than a year ago?

4. Do you use electrical transcriptions for sustaining periods? Do you broadcast records for this purpose? Are you making increased use of either of these?

5. What in your experience is the public reaction to electrical transcriptions? Is it as favorable as to live talent programs? Has there been any change in its reaction over the past year or so? If so, what?

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....

COMMUNITY SERVICE

1. What specifically have you done during the past year in the way of broadcasting programs and carrying on other activities in the community service? (For example, co-operating with the local Board of Education, broadcasting civic events, etc.)

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PLEASE RETURN THIS QUESTIONNAIRE TO:
HERMAN S. HETTINGER
Merchandising Department
Wharton School of Finance and Commerce
University of Pennsylvania
Philadelphia, Pennsylvania

APPENDIX C

STATIONS OF THE NATIONAL BROADCASTING COMPANY AND COLUMBIA BROADCASTING SYSTEM, INC.

NATIONAL BROADCASTING COMPANY STRUCTURE ANALYSIS

STATIONS AND POWER (IN WATTS) OF THE ORIGINAL WEAF CHAIN*

Station Call Letters	City and State	Zone	Power Annually in Watts				
			1922	1923	1924	1925	1926
WEAF	New York, N.Y.	1	500	500	5,000	5,000	5,000
WEEI	Boston, Mass.	1	......	......	......	500	500
WTIC	Hartford, Conn.	1	......	......	......	500	500
WJAR	Providence, R.I.	1	......	......	500	500	500
WTAG	Worcester, Mass.	1	......	......	......	500	500
WCSH	Portland, Me.	1	......	......	......	......	500
WFI(WLIT)	Philadelphia, Pa.	2	......	......	......	500	500
WCAE	Pittsburgh, Pa.	2	......	......	......	500	500
WTAM	Cleveland, Ohio	2	......	......	......	1,500	1,500
WWJ	Detroit, Mich.	2	......	......	......	1,000	1,000
WSAI	Cincinnati, Ohio	2	......	......	......	5,000	5,000
WGR	Buffalo, N.Y.	1	......	......	750	750	750
WGN	Chicago, Ill.	4	......	......	......	......	1,000
KSD	St. Louis, Mo.	4	......	......	......	......	500
WOC	Davenport, Iowa	4	......	......	......	5,000	5,000
WDAF	Kansas City, Mo.	4	......	......	......	......	500
WCCO	Minneapolis, Minn.	4	......	......	......	......	5,000
Total power	....	......	500	500	6,250	21,250	28,750
Number of stations	....	......	1	1	3	13	18

* Power and station membership is given here as of June 30 annually. Where night and day power vary, night power is used.

Source: *NBC Markets* and various annual issues of *Commercial and Government Broadcasting Stations of the United States*, Radio Division, Bureau of Foreign and Domestic Commerce

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1926–32*

(A) THE RED NETWORK (WEAF)

Station Call Letters	City and State	Zone	Watt Power						
			1926†	1927	1928	1929	1930	1931	1932
WEAF	New York, N.Y.	1	5,000	50,000	50,000	50,000	50,000	50,000	50,000
WEEI	Boston, Mass.	1	500	500	500	500	1,000	1,000	1,000
WTIC	Hartford, Conn.	1	500	500	500	500	50,000	50,000	50,000
WJAR	Providence, R.I.	1	500	500	500	500	250	250	250
WTAG	Worcester, Mass.	1	500	500	250	250	250	250	250
WCSH	Portland, Me.	1	500	500	500	500	500	1,000	1,000
WGR	Buffalo, N.Y.	1	750	750	750	1,000	1,000	....	....
WFBR	Baltimore, Md.	1	....	....	....	....	....	....	500
WRC	Washington, D.C.	1	....	1,000	1,000	500	500	500	500
WGY	Schenectady, N.Y.	1	....	30,000	50,000	50,000	50,000	50,000	50,000
WBEN	Buffalo, N.Y.	1	....	....	....	....	....	1,000	1,000
WFI	Philadelphia, Pa.	2	500	500	500	500	500	500	500
WLIT	Philadelphia, Pa.	2	500	500	500	500	500	500	500
WCAE	Pittsburgh, Pa.	2	500	500	500	500	1,000	1,000	1,000
WTAM	Cleveland, Ohio	2	1,500	3,500	3,500	3,500	50,000	50,000	50,000
WWJ	Detroit, Mich.	2	1,000	1,000	1,000	1,000	1,000	1,000	1,000
WSAI	Cincinnati, Ohio	2	5,000	5,000	5,000	500	500	500	500
WENR‡	Chicago, Ill.	4	....	....	....	5,000	5,000	5,000	5,000
WLS	Chicago, Ill.	4	....	....	....	5,000	5,000	50,000	50,000
WMAQ	Chicago, Ill.	4	....	....	....	....	....	....	5,000
WGN	Chicago, Ill.	4	1,000	15,000	25,000	25,000	25,000	25,000	....
KYW	Chicago, Ill.	4	....	3,500	2,500	5,000	10,000	10,000	10,000
WCFL	Chicago, Ill.	4	....	....	....	1,500	1,500	1,500	1,500
WIBO	Chicago, Ill.	4	....	....	....	....	1,000	1,000	....
KSD	St. Louis, Mo.	4	500	500	500	500	500	500	500
WOC	Davenport, Iowa	4	5,000	5,000	5,000	5,000	5,000	5,000	5,000
WHO	Des Moines, Iowa	4	....	....	5,000	5,000	5,000	5,000	5,000
WOW	Omaha, Neb.	4	....	....	1,000	1,000	1,000	1,000	1,000
WDAF	Kansas City, Mo.	4	500	1,000	1,000	1,000	1,000	1,000	1,000
WCCO	Minneapolis, Minn.	4	5,000	5,000	5,000	....	....	....	....
Total power	....	....	29,250	125,250	160,000	164,250	267,000	312,500	292,000
Number of stations	....	....	18	21	23	25	26	26	26

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* Power as of June 30, annually. Night power used where day and night power vary.

† The National Broadcasting Company was formed in November, 1926. Figures for that year are of June 30 so as to be comparable to independent station data. Few changes occurred between June and November.

‡ All Chicago stations are used alternately by both Red and Blue networks.

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1926–32—*Continued*

(B) THE BLUE NETWORK (WJZ)*

STATION CALL LETTERS	CITY AND STATE	ZONE	WATT POWER					
			1927	1928	1929	1930	1931	1932
WJZ	New York, N.Y.	1	30,000	30,000	30,000	30,000	30,000	30,000
WBZ	Boston, Mass.	1	15,000	15,000	15,000	15,000	15,000	15,000
WBZA	Springfield, Mass.	1	500	500	500	500	1,000	1,000
WBAL	Baltimore, Md.	1	5,000	5,000	5,000	10,000	10,000	10,000
WHAM	Rochester, N.Y.	1	5,000	5,000	5,000	5,000	5,000	5,000
KDKA	Pittsburgh, Pa.	2	30,000	50,000	50,000	50,000	50,000	50,000
WGAR	Cleveland, Ohio	2	....	....	....	....	500	500
WJR	Detroit, Mich.	2	5,000	5,000	5,000	5,000	5,000	5,000
WCKY	Cincinnati, Ohio	2	....	....	....	5,000	5,000	5,000
WLW	Cincinnati, Ohio	2	....	5,000	5,000	50,000	50,000	50,000
KWK	St. Louis, Mo.	4	....	1,000	1,000	1,000	1,000	1,000
KOIL	Omaha-Council Bluffs	4	....	....	....	....	....	1,000
WREN	Kansas City, Mo.	4	....	1,000	1,000	1,000	1,000	1,000
KFAB	Lincoln, Neb.	4	....	....	....	5,000	5,000	....
Total power† (net—minus stations Chicago)	....	....	90,500	117,500	117,500	177,500	178,500	174,500
Number	....	....	7	10	10	12	13	13
Total power (including stations Chicago)	....	....	110,500	141,000	145,000	219,000	260,000	246,000
Number	....	....	9	13	12	17	18	18

* Power given as of June 30 annually. Where night and day power vary, night power is used. Data from *NBC Markets* and *Commercial and Government Radio Stations*, an annual publication of the Radio Division of the Department of Commerce.

† The use of the Chicago stations is interchangeable with the Red and Blue networks

(C) SOUTHEASTERN GROUP

STATION CALL LETTERS	CITY AND STATE	ZONE	WATT POWER					
			1927	1928	1929	1930	1931	1932
WRVA	Richmond, Va.	2	....	....	1,000	5,000	5,000	5,000
WWNC	Asheville, N.C.	3	....	....	....	....	....	1,000
WIS	Columbia, S.C.	3	....	....	....	....	....	500
WPTF	Raleigh, N.C.	3	....	....	1,000	1,000	1,000	1,000
WBT	Charlotte, N.C.	3	....	5,000	5,000	5,000	....	....
WJAX	Jacksonville, Fla.	3	1,000	1,000	1,000	1,000	1,000	1,000
WFLA-WSUN	Tampa, Fla.	3	....	....	....	1,000	1,000	1,000
WIOD	Miami, Fla.	3	....	....	1,000	1,000	1,000	1,000
Total power	....	....	1,000	6,000	9,000	14,000	9,000	10,500
Number of stations	....	....	1	2	5	6	5	7

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1926–32—*Continued*

(D) SOUTH-CENTRAL GROUP

Station Call Letters	City and State	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
WHAS	Louisville, Ky.	2	500	500	5,000	10,000	10,000	....
WSM	Nashville, Tenn.	3	1,000	5,000	5,000	5,000	5,000	5,000
WMC	Memphis, Tenn.	3	500	500	500	500	500	500
WSB	Atlanta, Ga.	3	1,000	1,000	1,000	5,000	5,000	5,000
WAPI	Birmingham, Ala.	3	....	....	5,000	5,000	5,000	5,000
WJDX	Jackson, Miss.	3	....	....	....	1,000	1,000	1,000
WSMB	New Orleans, La.	3	....	....	500	500	500	500
Total power	....	....	3,000	7,000	17,000	27,000	27,000	17,000
Number of stations..	....	....	4	4	6	7	7	6

(E) SOUTHWESTERN GROUP

Station Call Letters	City and State	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
KTBS	Shreveport, La.	3	....	....	....	....	....	1,000
KVOO	Tulsa, Okla.	3	1,000	1,000	5,000	5,000	5,000	5,000
WKY	Oklahoma City, Ok.	3	....	....	1,000	1,000	1,000	1,000
KTHS	Hot Springs, Ark.	3	....	....	10,000	10,000	10,000	10,000
WBAP	Fort Worth, Tex.	3	....	5,000	10,000	10,000	10,000	10,000
KPRC	Houston, Tex.	3	....	1,000	1,000	1,000	1,000	1,000
WOAI	San Antonio, Tex.	3	....	5,000	5,000	5,000	50,000	50,000
Total power	....	....	1,000	12,000	32,000	32,000	77,000	78,000
Number of stations..	....	....	1	4	6	6	6	7

(F) NORTHWESTERN GROUP

Station Call Letters	City and State	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
WTMJ	Milwaukee, Wis.	4	....	1,000	1,000	1,000	1,000	1,000
WIBA	Madison, Wis.	4	.	. .	......	......	....	500
KSTP	St. Paul, Minn.	4	....	....	10,000	10,000	10,000	10,000
WEBC	Duluth-Superior, Wis.	4	....	1,000	1,000	1,000	1,000	1,000
WDAY	Fargo, N.D.	4	....	....	....	....	1,000	1,000
KFYR	Bismarck, N.D.	4	....	....	....	....	1,000	1,000
Total power	....	....	....	2,000	12,000	12,000	14,000	14,500
Number of stations..	....	....	....	2	3	3	5	6

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1926–32—*Continued*

(G) MOUNTAIN GROUP

STATION CALL LETTERS	CITY AND STATE	ZONE	WATT POWER					
			1927	1928	1929	1930	1931	1932
KGIR	Butte, Mont.	5						500
KGHL	Billings, Mont.	5						1,000
KOA	Denver, Colo.	5		5,000	12,500	12,500	12,500	12,500
KSL	Salt Lake City, Utah	5			5,000	5,000	5,000	5,000
Total power				5,000	17,500	17,500	17,500	19,000
Number of stations				1	2	2	2	4

(H) CANADIAN SUBSIDIARIES

STATION CALL LETTERS	CITY AND STATE	WATT POWER					
		1927	1928	1929	1930	1931	1932
CKGW	Toronto				5,000	5,000	5,000
CFCF	Montreal					1,650	1,650
Total power					5,000	6,650	6,650
Number of stations					1	2	2

(I) PACIFIC ORANGE NETWORK

STATION CALL LETTERS	CITY AND STATE	ZONE	WATT POWER					
			1927	1928	1929	1930	1931	1932
KGO	San Francisco, Calif.	5	7,500	7,500	7,500	7,500	7,500	7,500
KFI	Los Angeles, Calif.	5	5,000	5,000	5,000	5,000	5,000	50,000
KGW	Portland, Ore.	5	1,000	1,000	1,000	1,000	1,000	1,000
KOMO	Seattle, Wash.	5	1,000	1,000	1,000	1,000	1,000	1,000
KFOA	Seattle, Wash.	5	1,000					
KHQ	Spokane, Wash.	5	1,000	1,000	1,000	1,000	1,000	1,000
Total power			16,500	15,500	15,500	15,500	15,500	60,500
Number of stations			6	5	5	5	5	5

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1926–32—*Continued*

(J) PACIFIC GOLD NETWORK

Station Call Letters	City and State	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
KPO..........	San Francisco, Calif.	5	1,000	1,000	5,000	5,000	5,000	5,000
KECA.........	Los Angeles, Calif.	5	....	....	....	1,000	1,000	1,000
KEX..........	Portland, Ore.	5	....	....	....	....	....	5,000
KJK..........	Seattle, Wash.	5	....	....	....	....	....	5,000
KGA..........	Spokane, Wash.	5	....	....	....	....	....	5,000
Total power	....	....	1,000	1,000	5,000	6,000	6,000	21,000
Number of stations..	....	....	1	1	1	2	2	5

(K) PACIFIC SUPPLEMENTARY NETWORK

Station Call Letters	City and State	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
KFSD.........	San Diego, Calif.	5	....	....	....	500	500	500
KTAR.........	Phoenix, Ariz.	5	....	....	....	500	500	500
Total power	....	....	....	....	....	1,000	1,000	1,000
Number of stations..	....	....	....	....	....	2	2	2

(L) HAWAIIAN SUBSIDIARY

Station Call Letters	City	Zone	Watt Power					
			1927	1928	1929	1930	1931	1932
KGU..........	Honolulu	5	....	....	....	....	....	1,000

COLUMBIA BROADCASTING SYSTEM

STRUCTURE ANALYSIS

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1928–32*

(A) BASIC NETWORK

Station Call Letters	City and State	Zone	Watt Power				
			1928	1929	1930	1931	1932
CKOK	Detroit-Windsor	......	......	......	......	......	5,000
WABC	New York, N.Y.	1	......	5,000	5,000	5,000	50,000
WOR	Newark, N.J.	1	5,000	5,000	......	......	......
WOKO	Albany, N.Y.	1	......	......	......	......	500
WCAO	Baltimore, Md.	1	250	250	250	250	250
WNAC	Boston, Mass.	1	500	500	1,000	1,000	1,000
WAAB	Boston, Mass.	1	......	......	......	......	500
WGR	Buffalo, N.Y.	1	......	......	......	1,000	1,000
WMAK	Buffalo, N.Y.	1	900	1,000	750	......	......
WKBW	Buffalo, N.Y.	1	......	5,000	5,000	5,000	5,000
WDRC	Hartford, Conn.	1	......	......	......	500	500
WEAN	Providence, R.I.	1	250	250	250	250	250
WFBL	Syracuse, N.Y.	1	750	750	1,000	1,000	1,000
WMAL	Washington, D.C.	1	......	250	250	250	250
WCAU	Philadelphia, Pa.	2	1,000	1,000	10,000	10,000	10,000
†WIP-WFAN	Philadelphia, Pa.	2	......	500	500	500	500
‡WXYZ	Detroit, Mich.	2	750	750	1,000	1,000	......
WADC	Akron, Ohio	2	1,000	1,000	1,000	1,000	1,000
WKRC	Cincinnati, Ohio	2	500	500	1,000	1,000	1,000
WHK	Cleveland, Ohio	2	......	1,000	1,000	1,000	1,000
WJAS	Pittsburgh, Pa.	2	1,000	1,000	1,000	1,000	1,000
WSPD	Toledo, Ohio	2	......	750	500	500	1,000
WLBW	Oil City, Pa.	2	......	500	1,000	......	......
WAIU	Columbus, Ohio	2	500	......	......	......	......
WBBM	Chicago, Ill.	4	......	25,000	25,000	25,000	25,000
WGN	Chicago, Ill.	4	......	......	......	......	25,000
WJJD	Chicago, Ill.	4	......	......	20,000	20,000	......
WMAQ	Chicago, Ill.	4	5,000	5,000	5,000	5,000	......
WOWO	Fort Wayne, Ind.	4	500	5,000	10,000	10,000	10,000
WFBM	Indianapolis, Ind.	4	......	......	......	......	1,000
KMBC	Kansas City, Mo.	4	500	500	1,000	1,000	1,000
KMOX	St. Louis, Mo.	4	5,000	5,000	5,000	50,000	50,000
KOIL	Council Bluffs, Iowa	4	1,000	1,000	1,000	1,000	......
WHAS	Louisville, Ky.	2	......	......	......	......	10,000
Total power	....	......	24,400	66,500	97,500	142,250	202,750
Number of stations	....	......	17	24	24	24	26

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* As of June 30, annually.

† Prior to 1931—WFAN only.

‡ Prior to 1931—WGHP.

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1928–32—*Continued*

(B) SUPPLEMENTARY STATIONS

Station Call Letters	City and State	Zone	Watt Power				
			1928	1929	1930	1931	1932
WFEA	Manchester, N.H.	1	......	......	......	......	500
WLBZ	Bangor, Me.	1	......	......	......	500	500
WHEC	Rochester, N.Y.	1	......	......	500	500	500
WORC	Worcester, Mass.	1	......	......	......	100	100
WPG	Atlantic City, N.J.	1	......	......	......	5,000	5,000
WOKO	Albany, N.Y.	1	......	......	......	500	......
WBCM	Bay City, Mich.	2	......	......	500	500	500
WHP	Harrisburg, Pa.	2	......	......	500	500	500
WFIW	Hopkinsville, Ky.	2	......	......	1,000	1,000	1,000
WLBW	Oil City, Pa.	2	......	......	......	500	500
WDBJ	Roanoke, Va.	2	......	......	......	250	250
WWVA	Wheeling, W.Va.	2	......	......	......	......	5,000
WKBN	Youngstown, Ohio	2	......	......	500	500	500
WCAH	Columbus, Ohio	2	......	......	......	500	500
WAIU	Columbus, Ohio	2	......	......	500	500	......
WGST	Atlanta, Ga.	3	......	......	......	250	250
WBRC	Birmingham, Ala.	3	......	500†	500	500	500
WBT	Charlotte, N.C.	3	......	......	......	5,000	5,000
WDOD	Chattanooga, Tenn.	3	......	1,000†	1,000†	1,000	1,000
KRLD	Dallas, Tex.	3	......	5,000‡	10,000‡	10,000	10,000
WRR	Dallas, Tex.	3	......	500‡	500‡	500	500
WBIG	Greensboro, N.C.	3	......	......	......	......	500
KTRH	Houston, Tex.	3	......	......	......	500	500
WNOX	Knoxville, Tenn.	3	......	......	......	......	1,000
KRLA	Little Rock, Ark.	3	......	1,000‡	1,000‡	1,000	1,000
WREC	Memphis, Tenn.	3	......	500†	500†	500	500
WODX	Mobile, Ala.	3	......	......	......	......	500
WSFA	Montgomery, Ala.	3	......	......	......	......	500
WLAC	Nashville, Tenn.	3	......	5,000†	5,000†	5,000	5,000
WDSU	New Orleans, La.	3	......	1,000†	1,000†	1,000	1,000
WTAR	Norfolk, Va.	2	......	......	......	500	500
KFJF	Oklahoma City, Okla.	3	......	5,000‡	5,000‡	5,000	5,000
KTSA	San Antonio, Tex.	3	......	1,000‡	1,000‡	1,000	1,000
WACO	Waco, Tex.	3	......	......	......	1,000	1,000
WWNC	Asheville, N.C.	3	......	......	......	1,000	......
WTAQ	Eau Claire, Wis.	4	......	......	......	1,000	1,000
WKBH	La Crosse, Wis.	4	......	......	......	......	1,000
WISN	Milwaukee, Wis.	4	......	250§	250§	250	250
WCCO	Minneapolis, Minn.	4	......	7,500§	7,500§	7,500	5,000
WMBD	Peoria, Ill.	4	......	......	......	......	500
KSCJ	Sioux City, Iowa	4	......	......	1,000‡	1,000	1,000
WIBW	Topeka, Kan.	4	......	500‡	500‡	1,000	1,000
WMT	Waterloo, Iowa	4	......	......	250	500	500
KFH	Wichita, Kan.	4	......	1,000‡	1,000‡	1,000	1,000
WNAX	Yankton, S.D.	4	......	......	......	1,000	1,000
WFBM	Indianapolis, Ind.	4	......	......	1,000	1,000	......

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1928–32—*Continued*

(B) SUPPLEMENTARY STATIONS—*Continued*

Station Call Letters	City and State	Zone	Watt Power				
			1928	1929	1930	1931	1932
WDAY	Fargo, N.D.	4	......	......	......	1,000	......
WRHM	St. Paul, Minn.	4	......	1,000§	......	......	......
KVOR	Colorado Springs, Colo.	5	......	......	......	......	1,000
KLZ	Denver, Colo.	5	......	1,000*	1,000‖	1,000	1,000
KOH	Reno, Nevada	5	......	......	......	......	500
KDYL	Salt Lake City, Utah	5	......	1,000*	1,000‖	1,000	1,000
KYA	San Francisco, Calif.	5	......	1,000*	......	......	......
KMTR	Los Angeles, Calif.	5	......	1,000*	......	......	......
KJR	Seattle, Wash.	5	......	5,000*	......	......	......
KEX	Portland, Ore.	5	......	5,000*	......	......	......
KGA	Spokane, Wash.	5	......	5,000*	......	......	......
KOY	Phoenix, Ariz.	5	......	......	......	......	500
KFAB	Lincoln, Neb.	4	......	......	......	......	5,000
Total power	......	......	......	49,750	42,500	61,850	71,850
Number of stations	......	......	......	22	25	41	48

* Pacific and Mountain Group—1929

† East-South-Central Group—1929–30.

‡ West-South-Central Group—1929–30.

§ West-North-Central Group—1929–30.

‖ Mountain Group—1930.

(C) SOUTH-ATLANTIC GROUP

Station Call Letters	City and State	Zone	Watt Power				
			1928	1929	1930	1931	1932
WDBJ	Roanoke, Va.	2	......	250	250	......	......
WTAR	Norfolk, Va.	2	......	500	500	......	......
WWNC	Asheville, N.C.	3	......	1,000	1,000	......	......
WQAM	Miami, Fla.	3	......	......	......	1,000	1,000
WDBO	Orlando, Fla.	3	......	......	......	500	250
WTOC	Savannah, Ga.	3	......	......	......	500	500
WDAE	Tampa, Fla.	3	......	......	......	1,000	1,000
Total power	......	......	......	1,750	1,750	3,000	2,750
Number of stations	......	......	......	3	3	4	4

STATIONS AND POWER OF VARIOUS BASIC AND SUBSIDIARY NETWORKS, 1928–32—*Continued*

(D) DON LEE COAST UNIT

Station Call Letters	City and State	Zone	Watt Power				
			1928	1929	1930	1931	1932
KHJ	Los Angeles, Calif.	5	......	......	1,000	1,000	1,000
KOIN	Portland, Ore.	5	......	......	1,000	1,000	1,000
KFRC	San Francisco, Calif.	5	......	......	1,000	1,000	1,000
KVI	Seattle-Tacoma, Wash.	5	......	......	1,000	1,000	1,000
KFPY	Spokane, Wash.	5	......	......	1,000	1,000	1,000
KOL	Seattle, Wash.	5	......	......	......	1,000	1,000
KGB	San Diego, Calif.	5	......	......	......	......	500
Total power	......	......	......	......	5,000	6,000	6,500
Number of stations	......	......	......	......	5	6	7

(E) CANADIAN SUPPLEMENTARIES

Station Call Letters	City and State	Watt Power				
		1928	1929	1930	1931	1932
CKAC	Montreal	......	......	5,000	5,000	5,000
CFRB	Toronto	......	......	4,000	4,000	4,000
Total power	......	......	......	9,000	9,000	9,000
Number of stations	......	......	......	2	2	2

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